

**CITY OF WEST DES MOINES
PLAN AND ZONING COMMISSION COMMUNICATION**

Meeting Date: May 8, 2017

Item: Woodland Hills of West Des Moines Plat 3, West side of S. 91st Street, 550 feet south of the Cascade Avenue and S 91st Street intersection – Subdivide the property into 14 postage stamp lots for construction of a detached townhome development – Kimberly Development Corporation, LLC – PP-003129-2016/SP-003130-2016

Requested Action: Approval of Preliminary Plat and Site Plan

Case Advisor: J. Bradley Munford

Applicant's Request: Josh Trygstad with Civil Design Advantage, on behalf of the applicant Kimberly Development Corporation is requesting approval of a 4.20 acre Preliminary Plat to create 14 postage stamp lots. The applicant is also seeking approval of a Site Plan to allow construction of 14 townhomes and associated site improvements.

History: The City Council approved a rezoning request to establish the Tallyn's Reach PUD (aka Michael's Landing and/or Woodland Hills development) on May 22, 2006. On May 4, 2015, the City Council unanimously approved an amendment to the PUD Ordinance to remove the 55 year old minimum age qualification for Parcels F within the Woodland Hills development.

City Council Subcommittee: This item was presented at the July 11, 2016 and again at the May 1, 2017 Development and Planning City Council Subcommittee due to the delay in proceeding with approvals in 2016. The Subcommittee was supportive of the request.

Staff Review and Comment: This request was distributed to other City departments and other agencies for their review and comment. There are no outstanding issues. Staff would note the following:

- *Architecture:* Traditional Medium Density townhome developments have typically utilized one building design on all lots with minor changes in colors and materials to provide variation. With this development, the applicant intends to construct custom units tailored to individual buyers. Because the development is detached townhomes on individual lots, which for all practical purposes will be perceived as and feel like traditional detached single family, staff is comfortable with not all buildings being identical. Staff has indicated to the applicant that for visual continuity, there must be consistency in the architectural style implemented and compatibility in the materials and colors between the buildings. The submitted exterior elevations are considered precedent images that set agreed upon architectural minimums. The design for each building will be reviewed for compatibility with the images when submitted for building permits. If a house plan is determined to be out of character with the approved images, it will require approval as a Level 1 Minor Modification prior to issuance of the building permit.
- *Postage Stamp Lots:* The applicant is proposing a postage stamp lot for each unit. Building codes aim to maintain ten feet of separation between structures; separations less than 10' require different construction measures to address fire suppression measures. Staff recommends a condition of approval requiring a minimum five foot (5') setback from the lot boundary to the closest building element in order to provide for a minimum 10' separation.

Comprehensive Plan Consistency: The project has been reviewed for consistency with the Comprehensive Plan. Based upon that review, a finding has been made that the proposed project is consistent with the Comprehensive Plan in that the project is consistent with all of the goals and policies of the Comprehensive Plan and the land use map of the Comprehensive Plan.

Findings: This proposed project was distributed to various city departments for review and comment. Based upon that review, the following findings have been made on the proposed project:

1. The proposed development and use is consistent with the West Des Moines Comprehensive Plan in that the project has been reviewed for consistency with the Comprehensive Plan. Based upon that review, a finding has been made that the proposed project is consistent with the Comprehensive Plan in that the project is consistent with all of the goals and policies of the Comprehensive Plan.
2. The proposed development and use does assure compatibility of property uses within the zone and general area in that this project was reviewed by various City Departments for compliance with the Zoning Ordinance.
3. All applicable standards and conditions have been imposed which protects the public health, safety and welfare in that this project was reviewed by various City Departments and public agencies for compliance with the various state and local regulations. Based upon that review a finding is made that the project has been adequately conditioned to protect the health, welfare and safety of the community.
4. There is adequate on-site and off-site public infrastructure to support the proposed development in that this project was reviewed by various public agencies and City Departments and public utilities to ensure that either the petitioner will construct or the project has been conditioned to construct adequate public infrastructure to serve the development.
5. The proposed development and use has met the requirements contained in the City Code in that this project was reviewed by various City Departments and the project has complied with or has been conditioned to comply with all City Code requirements.
6. The proposed development and use is in keeping with the scale and nature of the surrounding neighborhood in that the proposed project is consistent with the zoning designation and Comprehensive Plan which designates this site as suitable for development such as that proposed by this project.

Staff Recommendation And Conditions Of Approval: Based upon the preceding review and a finding of consistency with the goals and policies of the Comprehensive Plan, staff recommends the Plan and Zoning Commission adopt a resolution recommending the City Council approve the Preliminary Plat to create 14 postage stamp lots and approve the Site Plan to allow the development of a 14 unit townhome development and associated site improvements, subject to the applicant meeting all City Code requirements and the following:

1. The applicant acknowledging that there shall be consistency in architectural style and compatibility in materials and colors between all homes. At the time of Building Permit submittal, should a home design be determined by staff to be inconsistent to the approved images provided with this site plan, staff approval of a Level 1 Minor Modification Permit Application will be necessary prior to the issuance of a building permit, including footing and foundation permit; and
2. A minimum of five feet (5') as measured from the lot line of the postage stamp lot to the closest element of the dwelling building, including roof overhangs, bump-outs, bay windows, window wells, etc. shall be provided.

Applicant:

Kimberly Development Corporation
Bill Kimberly
2875 N. Ankeny Boulevard Suite22
Ankeny, Iowa 50023
Bill@kimdev.com

Applicant Representative:

Civil Design Advantage LLC
Josh Trygstad, P.E
3405 SE Crossroads Drive, Suite G
Grimes, IA
JoshT@cda-eng.com

ATTACHMENTS:

Attachment A	-	Plan and Zoning Commission Resolution
Exhibit A	-	Conditions of Approval
Attachment B	-	Location Map
Attachment C	-	Preliminary Plat / Site Plan
Attachment D	-	Architecture Concepts

RESOLUTION NO. PZC-17-042

A RESOLUTION OF THE PLAN AND ZONING COMMISSION OF THE CITY OF WEST DES MOINES, RECOMMENDING TO THE CITY COUNCIL THAT IT APPROVE A PRELIMINARY PLAT TO SUBDIVIDE THE PROPERTY INTO 14 LOTS AND APPROVE A SITE PLAN FOR THE CONSTRUCTION OF 14 DETACHED TOWNHOMES

WHEREAS, pursuant to the provisions of Title 10, Chapter 1 et seq, of the West Des Moines Municipal Code, the applicant, Kimberly Development Corporation, has requested approval for a Preliminary Plat for that approximately 4.20 acre site generally located on the west side of S. 91st Street, approximately 550 feet south of the Cascade Avenue and S 91st Street intersection to subdivide the property into 14 postage stamp lots.

WHEREAS, pursuant to the provisions of Title 9, Chapter 1 et seq, of the West Des Moines Municipal Code, the applicant, Kimberly Development Corporation has requested approval of a Site Plan for that approximately 4.20 acre site generally located on the west side of S. 91st Street, approximately 550 feet south of the Cascade Avenue and S 91st Street intersection to construct 14 townhomes and associated site improvements;

WHEREAS, studies and investigations were made, and staff reports and recommendations were submitted which is made a part of this record and herein incorporated by reference;

WHEREAS, on May 8, 2017, this Commission held a duly-noticed public meeting to consider the applications for the Preliminary Plat and Site Plan;

NOW, THEREFORE, THE PLAN AND ZONING COMMISSION OF THE CITY OF WEST DES MOINES DOES RESOLVE AS FOLLOWS:

SECTION 1. The findings, for approval, in the staff report, dated May 8, 2017, or as amended orally at the Plan and Zoning Commission meeting of May 8, 2017, are adopted.

SECTION 2. Preliminary Plat/Site Plan to subdivide the property into 14 lots and allow construction of 14 townhomes is recommended to the City Council for approval, subject to compliance with all the conditions in the staff report, dated May 8, 2017, including conditions added at the meeting, and attached hereto as Exhibit "A". Violation of any such conditions shall be grounds for revocation of the permit, as well as any other remedy which is available to the City.

PASSED AND ADOPTED on May 8, 2017.

Craig Erickson, Chairperson
Plan and Zoning Commission

ATTEST:

Recording Secretary

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the Plan and Zoning Commission of the City of West Des Moines, Iowa, at a regular meeting held on May 8, 2017, by the following vote:

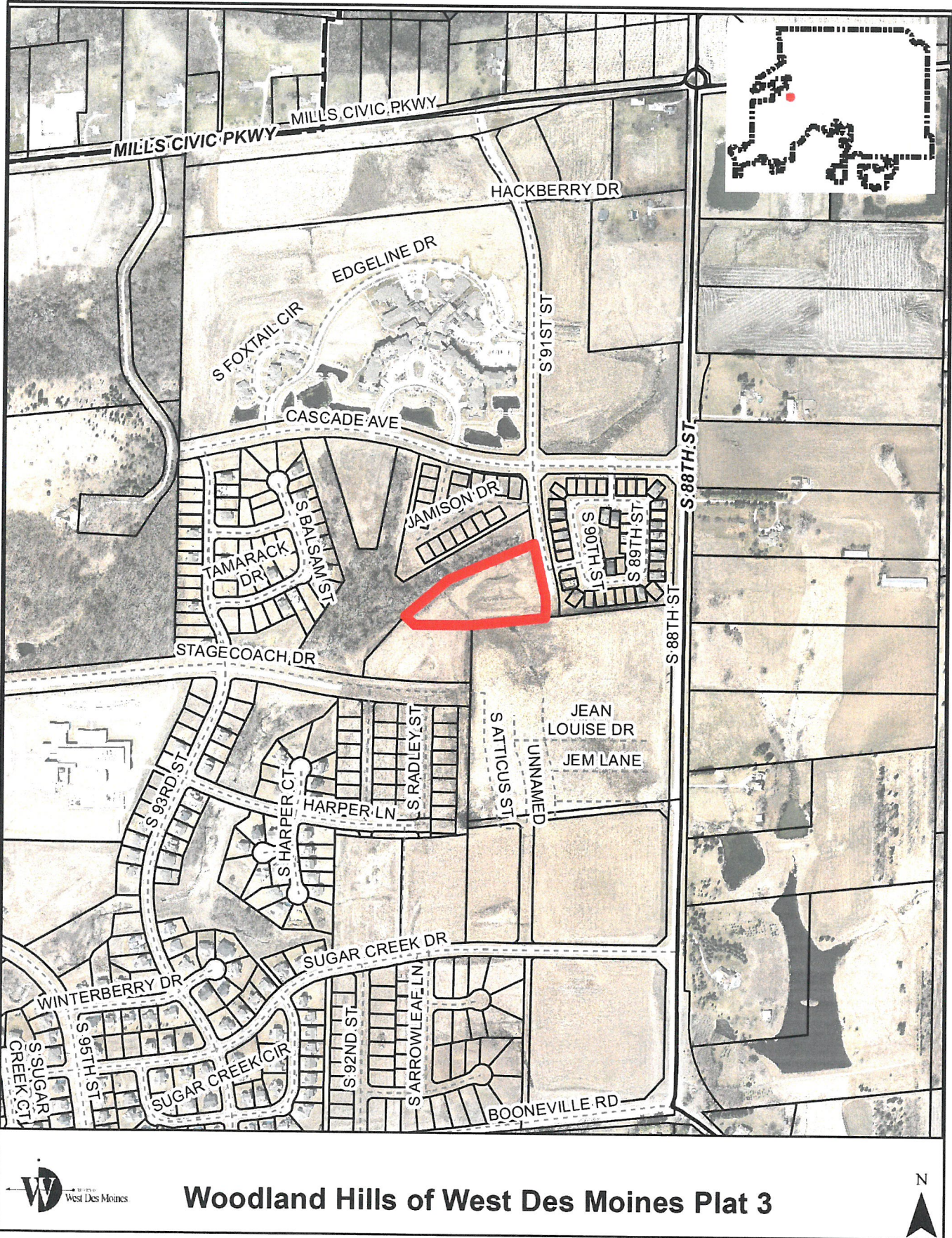
- AYES:
- NAYS:
- ABSTENTIONS:
- ABSENT:

ATTEST:

Recording Secretary

EXHIBIT A
CONDITIONS OF APPROVAL

1. The applicant acknowledging that there shall be consistency in architectural style and compatibility in materials and colors between all homes. At the time of Building Permit submittal, should a home design be determined by staff to be inconsistent to the approved images provided with this site plan, staff approval of a Level 1 Minor Modification Permit Application will be necessary prior to the issuance of a building permit, including footing and foundation permit; and
2. A minimum of five feet (5') as measured from the lot line of the postage stamp lot to the closest element of the dwelling building, including roof overhangs, bump-outs, bay windows, window wells, etc. shall be provided.



Woodland Hills of West Des Moines Plat 3

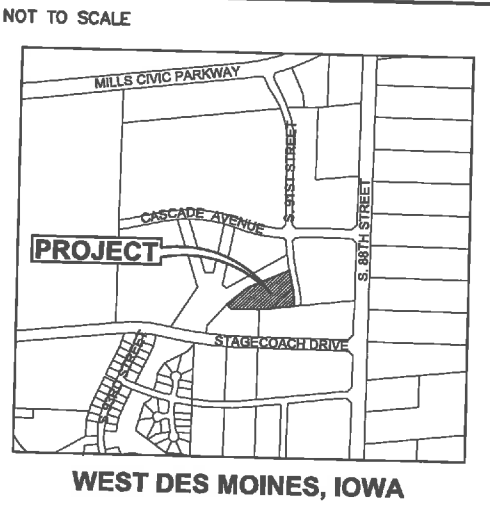
N

PRELIMINARY PLAT / SITE PLANS FOR:

WOODLAND HILLS OF WEST DES MOINES PLAT 3

WEST DES MOINES, IOWA

VICINITY MAP



INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2-3	TYPICAL SECTION AND DETAILS
4	QUANTITIES, BID ITEM REFERENCE NOTES AND GENERAL NOTES
5	DEMOLITION PLAN - TOPOGRAPHIC SURVEY
6	DIMENSION PLAN
7-9	PLAN AND PROFILE
10	GRADING PLAN
11	LANDSCAPE PLAN

GENERAL LEGEND

PROPOSED	EXISTING
SECTION LINE	SANITARY MANHOLE
CENTER LINE	WATER VALVE BOX
RIGHT OF WAY	FIRE HYDRANT
PERMANENT EASEMENT	WATER CURB STOP
TEMPORARY EASEMENT	WELL
TYPE SW-501 STORM INTAKE	STORM SEWER MANHOLE
TYPE SW-503 STORM INTAKE	STORM SEWER SINGLE INTAKE
TYPE SW-505 STORM INTAKE	STORM SEWER DOUBLE INTAKE
TYPE SW-508 STORM INTAKE	FLARED END SECTION
TYPE SW-513 STORM INTAKE	DECIDUOUS TREE
TYPE SW-401 STORM MANHOLE	CONIFEROUS TREE
TYPE SW-402 STORM MANHOLE	DECIDUOUS SHRUB
TYPE SW-301 SANITARY MANHOLE	CONIFEROUS SHRUB
STORM/SANITARY CLEANOUT	ELECTRIC POWER POLE
WATER VALVE	GUY ANCHOR
FIRE HYDRANT ASSEMBLY	STREET LIGHT
SIGN	POWER POLE W/ TRANSFORMER
DETECTABLE WARNING PANEL	UTILITY POLE W/ LIGHT
WATER CURB STOP	ELECTRIC BOX
STORM SEWER STRUCTURE NO.	ELECTRIC TRANSFORMER
STORM SEWER PIPE NO.	ELECTRIC MANHOLE OR VAULT
SANITARY SEWER STRUCTURE NO.	TRAFFIC SIGN
SANITARY SEWER PIPE NO.	TELEPHONE JUNCTION BOX
SANITARY SEWER WITH SIZE	TELEPHONE MANHOLE/VAULT
SANITARY SERVICE	TELEPHONE POLE
STORM SEWER	GAS VALVE BOX
STORM SERVICE	CABLE TV JUNCTION BOX
WATERMAIN WITH SIZE	CABLE TV MANHOLE/VAULT
WATER SERVICE	MAIL BOX
SAWCUT (FULL DEPTH)	BENCHMARK
SILT FENCE	SOIL BORING
USE AS CONSTRUCTED	UNDERGROUND TV CABLE
MINIMUM PROTECTION ELEVATION	GAS MAIN
TOP OF PROPOSED GROUND	FIBER OPTIC
	UNDERGROUND TELEPHONE
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	FIELD TILE
	SANITARY SEWER W/ SIZE
	STORM SEWER W/ SIZE
	WATER MAIN W/ SIZE

LEGAL DESCRIPTION

OUTLOT 'K', CORRECTED MICHAEL'S LANDING PLAT 1, BEING AN OFFICIAL PLAT OF THE CITY OF WEST DES MOINES, DALLAS COUNTY, IOWA AND CONTAINING 4.20 ACRES (182,835 S.F.).
 PROPERTY SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

ADDRESSES

9107-9195 GREENWAY DRIVE

COMPREHENSIVE PLAN LAND USE

MEDIUM DENSITY RESIDENTIAL

OWNER / APPLICANT

KIMBERLEY DEVELOPMENT CORPORATION
 CONTACT: BILL KIMBERLY
 2785 NORTH ANKENY BOULEVARD, SUITE 22
 ANKENY, IOWA 50023
 PH: (515) 963-8335

ENGINEER/ SURVEYOR

CIVIL DESIGN ADVANTAGE
 CONTACT: JOSH TRYGSTAD
 3405 SE CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PH: (515) 369-4400
 FX: (515) 369-4410

ZONING

EXISTING AND PROPOSED: TALLYN'S REACH P.U.D.
 (PARCEL F: MEDIUM DENSITY RESIDENTIAL)

SUBMITTAL DATES

FIRST SUBMITTAL: 06/28/16
 SECOND SUBMITTAL: 08/16/16
 THIRD SUBMITTAL: 09/15/16
 FOURTH SUBMITTAL: 10/12/16

BENCHMARKS

WDM NO 35
 INTERSECTION OF MILLS CIVIC PARKWAY (335th STREET, DALLAS COUNTY), AND SOUTH 88th STREET (X AVENUE, DALLAS COUNTY), NORTHEAST CORNER OF INTERSECTION, 208 FEET EAST OF CENTERLINE OF 88th STREET, 49 FEET NORTH OF THE CENTERLINE OF MILLS CIVIC PARKWAY, 2 FEET SOUTH OF THE FENCE LINE, STANDARD BENCHMARK. ELEV. = 219.04 (WEST DES MOINES DATUM).

WDM NO 37
 SOUTH 88th STREET, 2840± FEET SOUTH OF MILLS CIVIC PARKWAY, 32 FEET EAST OF THE CENTERLINE OF SOUTH 88th STREET (X AVENUE, DALLAS COUNTY), ON THE FENCE LINE TO THE WEST (1/4 SECTION LINE), 1 FOOT WEST OF THE NORTH/SOUTH FENCE LINE, STANDARD BENCHMARK. ELEV. = 194.80 (WEST DES MOINES DATUM).

DATE OF SURVEY

MAY 2016



CIVIL DESIGN ADVANTAGE
 3405 SE CROSSROADS DR. SUITE G GRIMES, IOWA 50111
 PH: (515) 369-4400 Fax: (515) 369-4410
 PROJECT NO. 1604.172

PARKING SUMMARY

PARKING REQUIRED (BY CODE):	2 STALLS/UNIT
NUMBER OF UNITS:	14 UNITS
TOTAL PARKING REQUIRED:	28 STALLS
PARKING PROVIDED:	
- DRIVEWAYS	28 STALLS
- DRIVEWAYS (14 3-CAR GARAGES)	42 STALLS
- OFF-STREET PARKING	4 STALLS
TOTAL PARKING PROVIDED:	74 STALLS

PROPOSED DENSITY

14 UNITS / 4.20 ACRES = 3.33 UNITS/ACRE

IMPERVIOUS AREA

76,722 S.F.

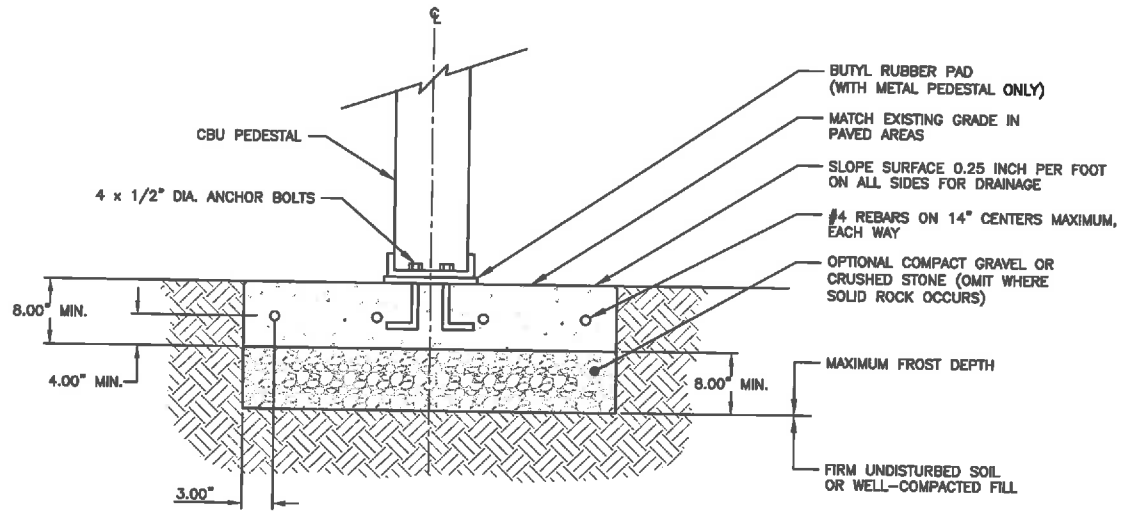
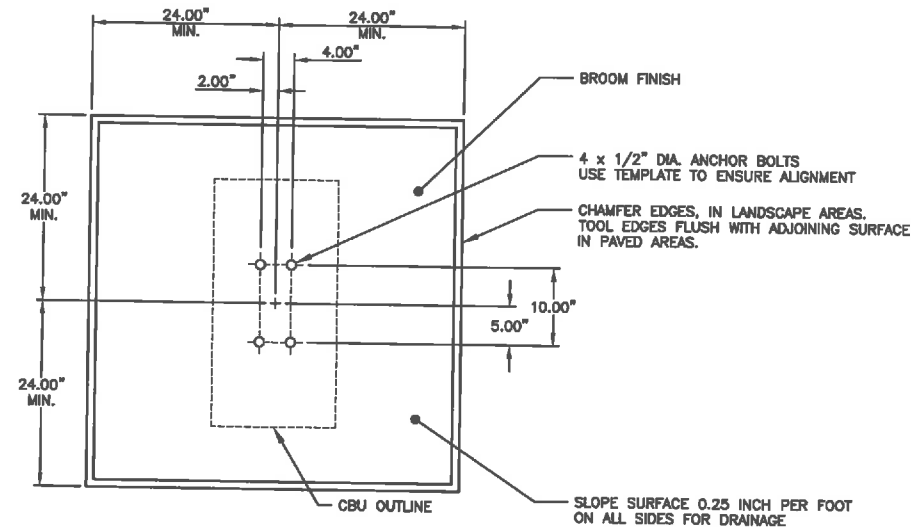
THE 2016 EDITION OF THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS, THE 1993 DES MOINES METRO DESIGN STANDARDS WITH THE WEST DES MOINES ADDENDA, AND THE WEST DES MOINES WATER WORKS STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

PRELIMINARY

JOSHUA A. TRYGSTAD, P.E. DATE _____

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2016
 PAGES OR SHEETS COVERED BY THIS SEAL:
 ALL SHEETS



- NOTES:
1. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS, CONTAIN 4% MIN. - 6% MAX. AIR ENTRAINMENT AND BE PLACED WITH A 3.50" - 4.00" SLUMP IN ACCORDANCE WITH ACI 301.
 2. REINFORCING STEEL REBARS SHALL CONFORM TO ASTM A615, GRADE 60.
 3. ANCHOR BOLTS SHALL CONFORM TO ASTM A193, GRADE 888, TYPE 316 STAINLESS STEEL.

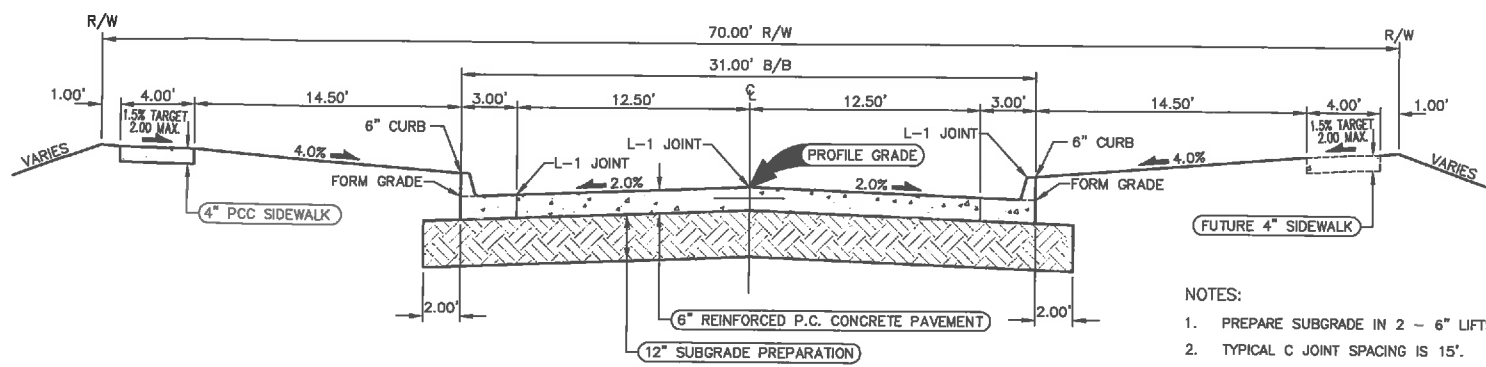
MAILBOX CLUSTER PAD DETAIL
NOT TO SCALE



TYPICAL TOWNHOME UNITS
LOTS 2-7, 9, 10-14

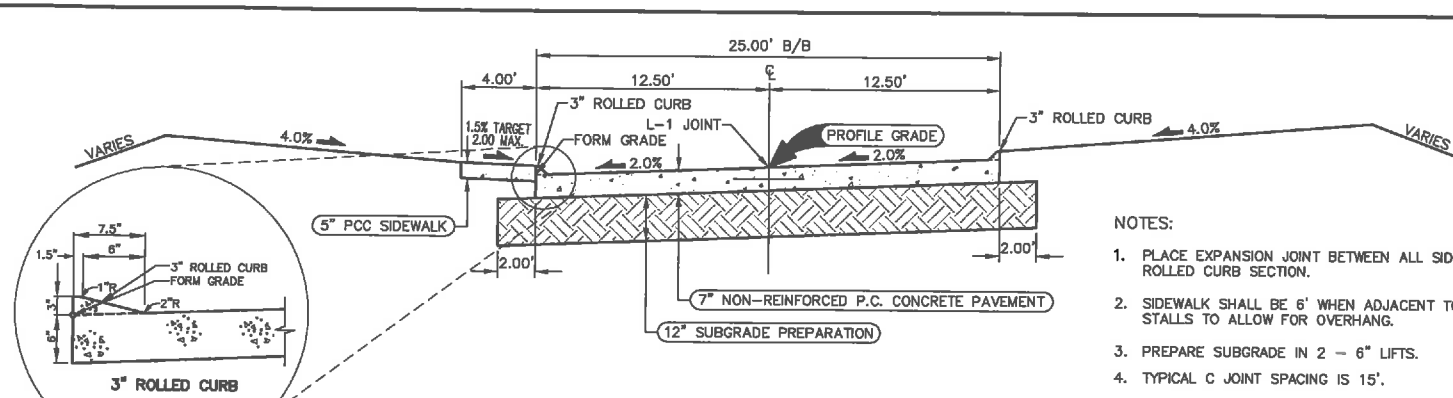


TYPICAL TOWNHOME UNITS
LOTS 1-14



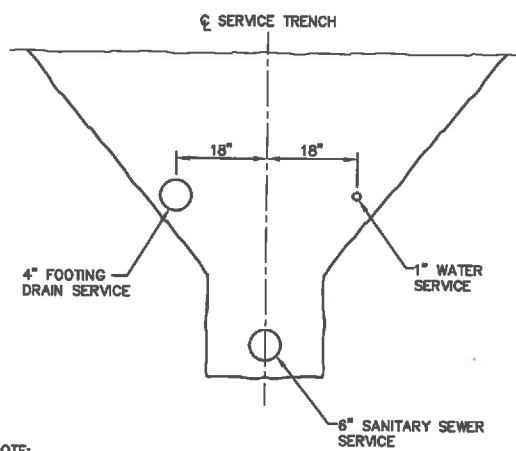
TYPICAL SECTION - 31' B/B REINFORCED P.C.C. ROADWAY
S. 91ST STREET

- NOTES:
1. PREPARE SUBGRADE IN 2 - 6" LIFTS.
 2. TYPICAL C JOINT SPACING IS 15'.



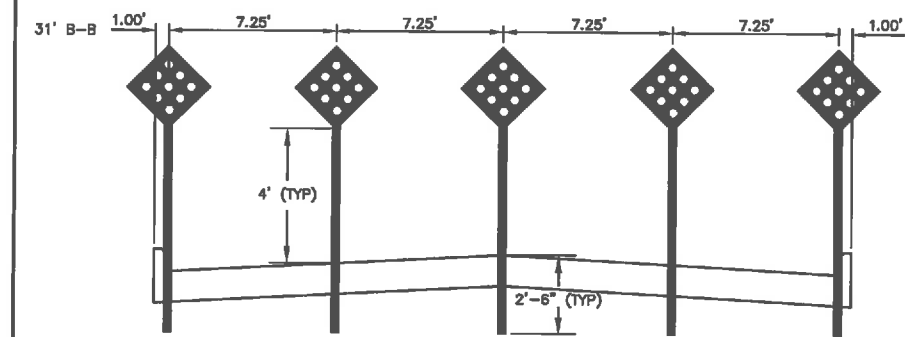
TYPICAL SECTION - 25' B/B NON-REINFORCED P.C.C. ROADWAY
GREENWOOD DRIVE

- NOTES:
1. PLACE EXPANSION JOINT BETWEEN ALL SIDEWALK AND ROLLED CURB SECTION.
 2. SIDEWALK SHALL BE 6' WHEN ADJACENT TO PARKING STALLS TO ALLOW FOR OVERHANG.
 3. PREPARE SUBGRADE IN 2 - 6" LIFTS.
 4. TYPICAL C JOINT SPACING IS 15'.

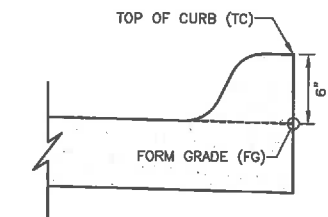


- NOTE:
1. EXTEND SERVICES TO THE LOT LINE. MARK ENDS OF SERVICES WITH STEEL POSTS.
 2. CONTRACTOR SHALL COORDINATE ALL SERVICE LINE CROSSINGS WITH MAIN UTILITIES.
 3. STOP BOX TO BE LOCATED IN THE OUTLOT AND BE A MINIMUM OF 10 FEET FROM STRUCTURES.

TYPICAL SERVICE INSTALLATION DETAILS
NOT TO SCALE



PERMANENT ROAD CLOSURE SIGN SPACING DETAIL SI-182
NOT TO SCALE



INTEGRAL 6" STANDARD CURB SPOT ELEVATION REFERENCE DETAIL
NOT TO SCALE

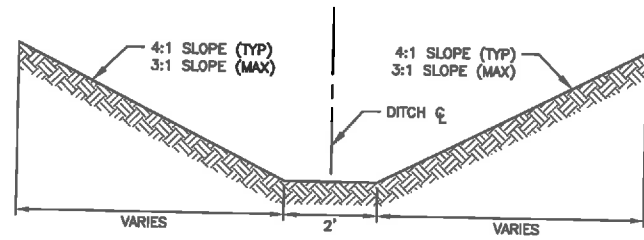
WOODLAND HILLS OF WEST DES MOINES
WEST DES MOINES, IOWA
PLAT 3
TYPICAL SECTIONS AND DETAILS

3405 S.E. CROSSROADS DRIVE, SUITE G
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: JAT TECH: MDM

REVISIONS: [Table with columns for DATE, REVISIONS, and SUBMITTALS]

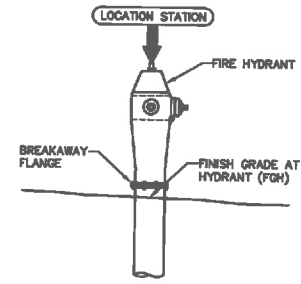
DATE: 10-12-16
FOURTH SUBMITTAL
10-12-16
THIRD SUBMITTAL
08-18-16
SECOND SUBMITTAL
08-18-16
FIRST SUBMITTAL
05-28-16

2 / 11
1604.172

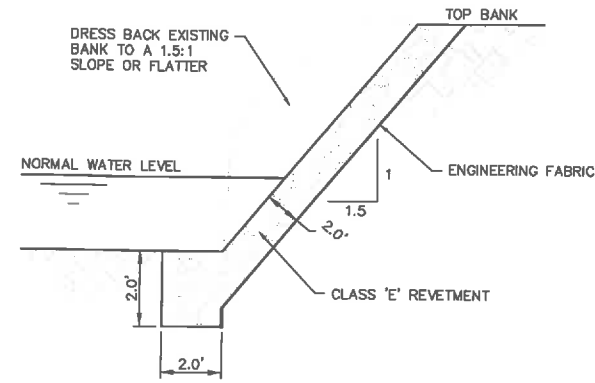


NOTE:
SEE SWPPP FOR EROSION CONTROLS
AND STABILIZATION PRIOR TO SEEDING.
SEED WITH TYPE 4 MIX (SUDAS).

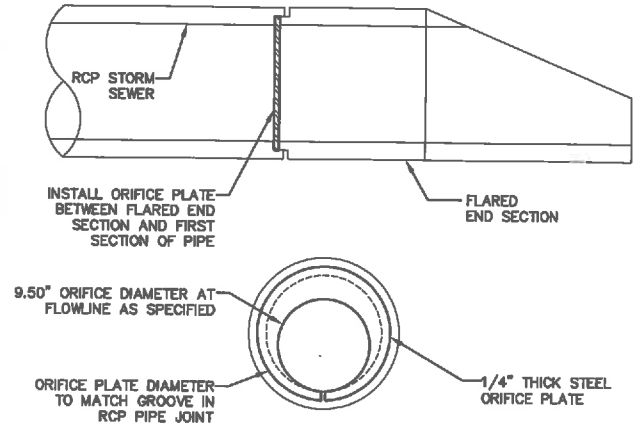
TYPICAL SWALE DETAILS
NOT TO SCALE



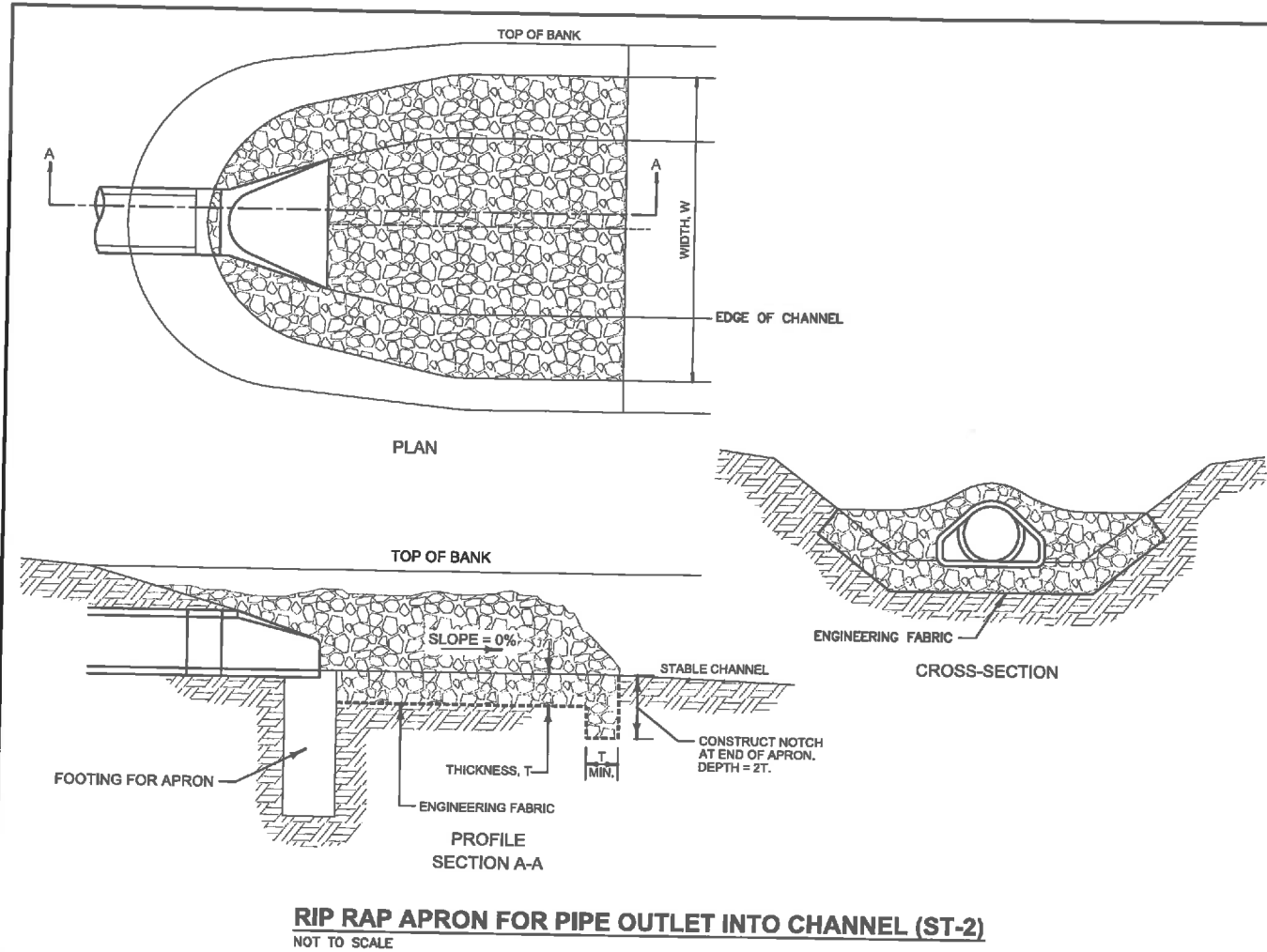
**HYDRANT ASSEMBLY
SPOT ELEVATION
REFERENCE DETAIL**
NOT TO SCALE



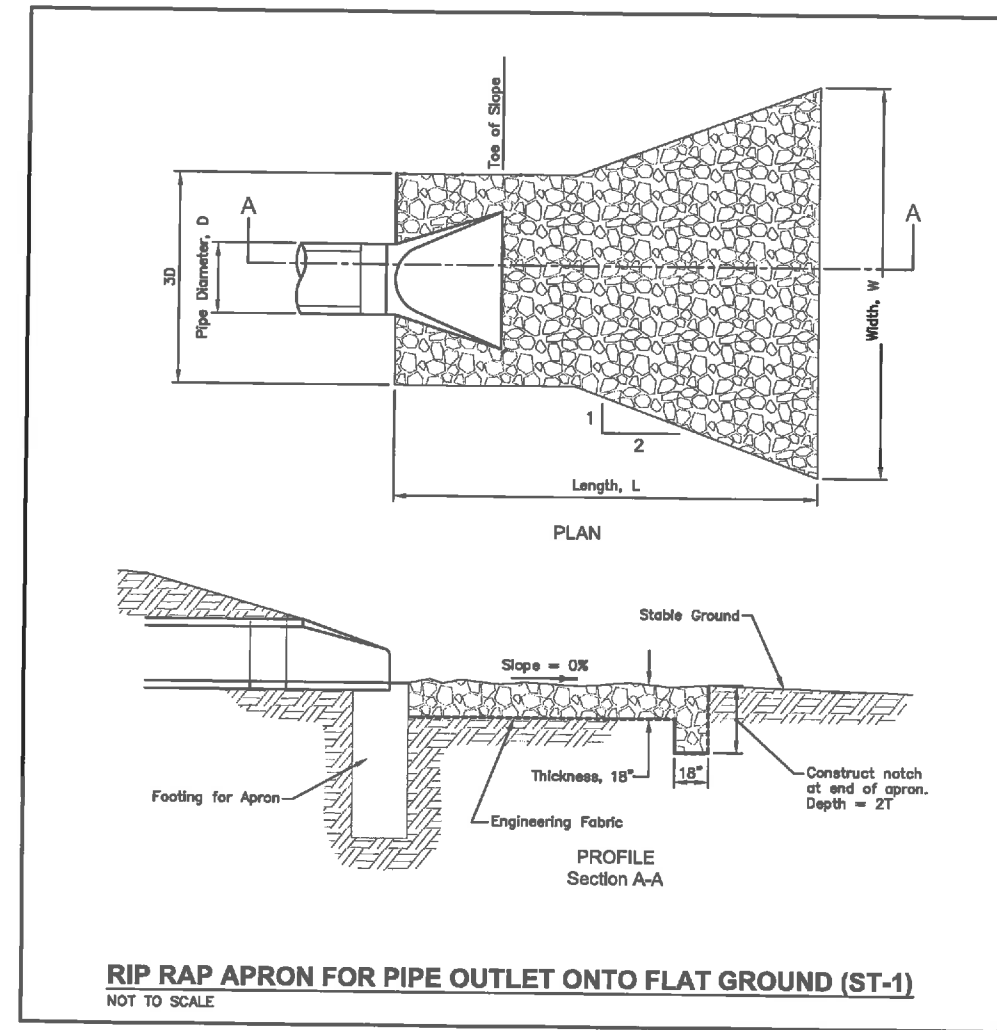
**TYPICAL STREAM BANK
ARMORING CROSS SECTION**
NOT TO SCALE



ORIFICE PLATE DETAIL (ST-3)
NOT TO SCALE



RIP RAP APRON FOR PIPE OUTLET INTO CHANNEL (ST-2)
NOT TO SCALE



RIP RAP APRON FOR PIPE OUTLET ONTO FLAT GROUND (ST-1)
NOT TO SCALE

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REVISIONS	DATE
FOURTH SUBMITTAL	10-12-10
THIRD SUBMITTAL	09-16-10
SECOND SUBMITTAL	08-18-10
FIRST SUBMITTAL	08-25-10

3405 S.E. CROSSROADS DRIVE, SUITE G
WOODLAND HILLS OF WEST DES MOINES
PHONE: (515) 369-4400 FAX: (515) 369-4410



WOODLAND HILLS OF WEST DES MOINES
PLAT 3
TYPICAL SECTIONS AND DETAILS
WEST DES MOINES, IOWA
ENGINEER: JAT TECH: MDM

ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM	UNIT	PUBLIC	PRIVATE
1	CLEARING AND GRUBBING	LS	0.25	0.75
2	TOPSOIL STRIP, SALVAGE AND SPREAD	CY	371	4018
3	PAVEMENT REMOVAL	SY	252	78
4	EXCAVATION	LS	0.25	0.75
5	SUBGRADE PREPARATION	CY	753	2226
6	SANITARY SEWER, 10 IN. DIA	LF	486	
7	SANITARY MANHOLE, TYPE SW-301, 48 IN. DIA.	EA	2	
8	SANITARY SEWER SERVICE, 6 IN. DIA	EA		14
9	SANITARY MANHOLE REMOVAL	EA	2	
10	CONNECTION TO EXISTING SANITARY MANHOLE	EA	2	
11	SANITARY MANHOLE ADJUSTMENT, MAJOR	EA	1	
12	ABANDON SANITARY SEWER, 10 IN. DIA.	LF	680	
13	STORM SEWER, SUMP PUMP SERVICE LINE, 4 IN. DIA	EA		14
14	STORM SEWER, 8 IN. HOPE SUMP LINE	LF		279
15	STORM SEWER, 12 IN. RCP	LF		94
16	STORM SEWER, 15 IN. RCP	LF		344
17	STORM SEWER, 12 IN. RCP, APRON	EA		2
18	STORM SEWER, 15 IN. RCP, APRON	EA		1
19	ORIFICE PLATE	EA		1
20	STORM MANHOLE, TYPE SW-401, 48 IN. DIA	EA		2
21	INTAKE, TYPE SW-501 (TYPE M-A INTAKE)	EA		1
22	INTAKE, TYPE SW-505 (TYPE M-D INTAKE)	EA		1
23	STORM SEWER, SUMP LINE CLEANOUT	EA		1
24	SUBDRAIN, CORRUGATED PVC, 6 IN.	LF	112	
25	STORM SEWER, SUMP LINE CLEANOUT	EA	1	
26	P.C.C. PAVEMENT, 7 IN. NON-REINFORCED	SY		2035
27	P.C.C. PAVEMENT, 6 IN. REINFORCED	SY	617	
28	P.C.C. SIDEWALK, 4 IN.	SY	202	
29	P.C.C. SIDEWALK, 5 IN.	SY		317
30	DETECTABLE WARNING	SF	16	
31	WATER MAIN, 8 IN. DIA	LF		424
32	WATER MAIN, 12 IN. DIA	LF	33	
33	TAPPING SLEEVE AND VALVE, 12 IN. x 8 IN.	EA		1
34	FIRE HYDRANT ASSEMBLY	EA	1	3
35	REMOVE BLOWOFF HYDRANT	EA	1	
36	WATER SERVICE, 1 IN. DIA	EA		14
37	SEEDING, FERTILIZING AND MULCHING	AC	0.35	4.51
38	PERMANENT ROAD CLOSURE (SI-182)	EA	1	
39	RIP RAP, CLASS E	TON		525
40	MAILBOX PAD	EA		1
41	TRAFFIC CONTROL	LS	0.50	0.50

ESTIMATE REFERENCE INFORMATION

Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.

ITEM NO.	DESCRIPTION
	THE MOST RECENT EDITION OF THE CITY OF WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED. WEST DES MOINES WATER WORKS SHALL REFERENCE THE 2016 EDITION OF SUDAS WITH THE WEST DES MOINES WATER WORKS GENERAL SUPPLEMENTAL SPECIFICATIONS TO SUDAS (HTTP://WWW.WDMWW.COM/CONNECTION-SPECS.ASPX).
	ALL REFERENCES TO STANDARD DRAWINGS ARE TO THE CITY OF WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS OR WEST DES MOINES WATER WORKS STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS.
1	CLEAR AND GRUB ALL AREAS AFFECTED BY GRADING OPERATIONS. THE CONTRACTOR SHALL FIELD VERIFY CLEARING AND GRUBBING NEEDS PRIOR TO BIDDING. REMOVAL OF ALL FENCES AND TREES INCLUDED IN THIS BID ITEM. ALL MATERIAL THAT IS REMOVED FROM THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
2	STRIP, SALVAGE AND SPREAD THE TOP 6 INCHES OF SOIL IN ALL DISTURBED AREAS. THE TOP 6 INCHES OF SOIL TO BE RESPREAD SHALL BE FREE OF ROCK AND DEBRIS AND BE SUITABLE FOR THE GROWTH OF GRASS.
3	REMOVE PAVEMENT AT GREENWOOD DRIVE AND 91ST STREET TIE-IN AND 91ST STREET AT SOUTH END OF PROJECT. PAVEMENT REMOVAL NEEDED AT FOR SANITARY SEWER CONNECTION AT 91ST STREET AND GREENWOOD DRIVE. ALL SAWCUT SHALL BE CONSIDERED INCIDENTAL.
5	REFER TO SHEET 2 FOR TYPICAL LOCATIONS AND THICKNESS. COMPACT THE TOP 12 INCHES OF SUBGRADE TO NOT LESS THAN 95% MAXIMUM STANDARD PROCTOR DRY DENSITY WITH A MOISTURE CONTENT AS SPECIFIED IN THE GEOTECHNICAL REPORT. SUBGRADE TO BE PREPARED IN 2 - 6 INCH LIFTS.
6-23	REFER TO STANDARD DRAWINGS 4.1 AND 4.2 FOR BEDDING DETAILS. GRANULAR PIPE BEDDING AND 45° BENDS SHALL BE CONSIDERED INCIDENTAL TO THIS BID ITEM.
6	ALL PUBLIC SEWERS CONSTRUCTED AS PART OF THIS PLAT SHALL BE TELEVISED AS PART OF THE FINAL INSPECTION. PROVIDE COPY TO WDM PUBLIC WORKS IN DVD FORMAT.
7	REFER TO STANDARD DRAWINGS 4.3 AND 4.4 FOR SANITARY SEWER MANHOLE CONSTRUCTION DETAILS. REFER TO STANDARD DRAWINGS 4.8 AND 4.9 FOR TYPE A AND TYPE B CASTING DETAILS. TYPE B CASTING REQUIRED FOR ALL MANHOLES IN PAVEMENT. ALL MANHOLES NEAR PAVEMENT NEED ROTATED TO MAXIMIZE DISTANCE BETWEEN PAVEMENT AND CASTING. REFER TO STANDARD DRAWING 7.16 FOR TYPICAL MANHOLE ASSEMBLY IN PAVEMENT DETAILS.
8,13,38	REFER TO DETAIL ON SHEET 2. MARK ENDS OF SERVICES WITH STEEL POSTS.
8	REFER TO STANDARD DRAWINGS 4.5 AND 4.6 FOR SANITARY SEWER SERVICE DETAILS.
9	REFER TO DEMOLITION PLAN ON SHEET 5 FOR LOCATION. MATERIAL THAT IS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR. CASTINGS TO BECOME PROPERTY OF THE CITY.
13	REFER TO STANDARD DRAWING 5.15 FOR SUMP PUMP DRAIN LINE CONSTRUCTION DETAILS.
15-16	PIPE LENGTH INCLUDES APRONS.
17-18	REFER TO STANDARD DRAWING 5.13 FOR APRON DETAILS. CONCRETE FOOTING AND APRON GUARD REQUIRED ON ALL APRON SECTIONS. FOOTING AND APRON GUARD SHALL BE CONSIDERED INCIDENTAL.
19	REFER TO ORIFICE PLATE DETAIL ON SHEET 3. ORIFICE PLATE REQUIRED ON ST-3.
20	REFER TO PLAN AND PROFILE SHEETS FOR MINIMUM INSIDE DIAMETER OF MANHOLES. REFER TO STANDARD DRAWING 5.1 FOR CONSTRUCTION DETAILS. REFER TO STANDARD DRAWING 5.8 AND 5.9 FOR TYPE E AND TYPE F CASTING DETAILS. TYPE F CASTING REQUIRED FOR ALL CASTINGS IN PAVEMENT. ALL MANHOLES NEAR PAVEMENT NEED TO BE ROTATED TO MAXIMIZE DISTANCE BETWEEN PAVEMENT AND CASTING.

ESTIMATE REFERENCE INFORMATION

Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.

ITEM NO.	DESCRIPTION
21-22	REFER TO STANDARD DRAWING NO. 7.15 FOR INTAKE BOXOUT DETAILS. REFER TO STANDARD DRAWING NO. 5.8 FOR TYPE E STORM SEWER CASTING DETAILS AND STANDARD DRAWING NO. 5.11 FOR TYPE R INTAKE CASTING DETAILS.
21	REFER TO STANDARD DRAWING 5.2 FOR TYPE M-A INTAKE CONSTRUCTION DETAILS.
22	REFER TO STANDARD DRAWING 5.4 FOR TYPE M-D INTAKE CONSTRUCTION DETAILS.
23	REFER TO STANDARD DRAWING 5.17 FOR CLEAN OUT CONSTRUCTION DETAILS. PRICE BID INCLUDES BENDS, PIPE, CLEANOUT, FRAME AND COVER, AND CONCRETE COLLAR.
26-27	REFER TO STANDARD DRAWING 7.2, 7.13 AND 7.14 FOR TYPICAL PAVEMENT REINFORCEMENT DETAILS. REFER TO STANDARD DRAWING 7.5 FOR CURB DETAILS. REFER TO STANDARD DRAWING 7.6 AND 7.7 FOR JOINT DETAILS. REFER TO STANDARD DRAWING 7.19 FOR TYPICAL HANDICAP RAMP DETAILS. INSTALL HANDICAP DROP CURBS AT ALL FUTURE SIDEWALK LOCATIONS. INTEGRAL CURB, SAWCUTS, JOINTS AND SEALING SHALL BE CONSIDERED INCIDENTAL. TYPICAL C AND CD JOINT SPACING SHALL BE 15 FEET.
28,30	REFER TO ACCESSIBLE RAMP DETAIL ON SHEET 3 FOR CONSTRUCTION DETAILS.
31-36	REFER TO FIG. 3010.101 - TRENCH BEDDING AND BACKFILL ZONES AND FIG. 3010.104 - PRESSURE PIPE TRENCH BEDDING FOR BEDDING AND BACKFILL GRANULAR PIPE BEDDING MATERIAL SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG 5010.101 FOR THRUST BLOCK DETAILS. REFER TO GENERAL SUPPLEMENTAL SPECIFICATIONS FOR TRACER WIRE INFORMATION. CONNECTIONS TO EXISTING WATER MAIN, ALL FITTINGS, PIPE BEDDING MATERIAL, POLYETHYLENE ENCASMENT, THRUST BLOCKS, AND TRACER WIRE SYSTEM SHALL BE CONSIDERED INCIDENTAL. ALL WATER MAIN SHALL BE INSTALLED A MINIMUM OF 5.5 FEET BELOW FINISHED GRADE.
34-35	REFER TO FIG. 5020.201 - FIRE HYDRANT ASSEMBLY FOR FIRE HYDRANT CONSTRUCTION DETAILS. INCLUDES ANCHORING TEE, ANCHORING ELBOW, GATE VALVE, VALVE BOX, ANCHORING PIPE, ANCHORING COUPLING, ELBOWS, TRACER WIRE STATION, FIRE HYDRANT AND THRUST BLOCKS. CONCRETE FOR THRUST BLOCKS SHALL BE CONSIDERED INCIDENTAL. THE REVISED TRACER WIRE AND HYDRANT DETAILS WITHIN THE GENERAL SUPPLEMENTAL SPECIFICATIONS SHALL APPLY.
36	INCLUDES WATER SERVICE, CORPORATION VALVE, AND STOP BOXES.
37	SEED, FERTILIZE AND MULCH ALL DISTURBED AREAS.
38	REFER TO IOWA DEPARTMENT OF TRANSPORTATION STANDARD ROAD PLAN SI-182 FOR DETAILS AND PERMANENT ROAD CLOSURE SIGN SPACING DETAIL SI-182 ON SHEET 2 FOR SPACING. SIGNS SHALL BE BLACK DIAMOND WITH RED DOTS.
39	REFER TO DETAIL ON SHEET 3 - TYPICAL STREAM BANK ARMORING CROSS SECTION, RIP RAP APRON FOR OUTLOT ONTO FLAT GROUND AND RIP RAP APRON FOR PIPE OUTLOT INTO CHANNEL FOR CONSTRUCTION INFORMATION. PLACE CLASS E RIP RAP A MINIMUM OF 1.5 FOOT THICK (2.0 FOOT FOR STREAM BANK). INSTALL FILTER FABRIC UNDER ALL RIP RAP. FILTER FABRIC SHALL BE CONSIDERED INCIDENTAL.
40	REFER TO MAILBOX PAD DETAILS ON SHEET 2. MAILBOX PADS TO BE INSTALLED WHEN SIDEWALKS ARE CONSTRUCTED.
41	ALL TEMPORARY OR PERMANENT TRAFFIC CONTROL DEVICES SHOWN ON THE PLANS SHALL BE IN ACCORDANCE TO LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS.

GENERAL NOTES

- WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.
THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- AT LEAST ONE WEEK PRIOR TO CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS AND/OR ANY CONNECTIONS TO PUBLIC SEWERS AND STREETS, THE CONTRACTOR SHALL CONTACT THE WDM CONSTRUCTION DIVISION - CLINT CARPENTER (222-3480) - TO OBTAIN APPLICABLE CITY PERMITS THAT MAY BE NECESSARY. IT IS IMPORTANT TO NOTE THAT CITY ENGINEER'S APPROVAL OF THESE CONSTRUCTION PLANS IS SUBJECT TO APPLICANT OBTAINING ALL NECESSARY EASEMENTS/AGREEMENTS AND APPLICABLE PERMITS.
- THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
- THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
- ALL WORK MUST BE DONE IN ACCORDANCE WITH THE CITY OF WEST DES MOINES WATER WORKS STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS. CONTRACTOR TO NOTIFY WEST DES MOINES WATER WORKS - (222-3485) - A MINIMUM OF ONE WEEK PRIOR TO COMMENCING CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN ALL SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT. INCLUDING STAGING OF CONSTRUCTION DETAILS.
- THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE PROPOSED AND EXISTING RIGHT OF WAY, CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS.
- SPECIAL CARE SHALL BE TAKEN WHEN FORMING AT INTERSECTIONS SO THE PROFILES SHOWN ON THE PLANS AND THE ELEVATIONS SHOWN ON THE INTERSECTION DETAILS ARE OBTAINED. SHORT LENGTHS OF FORMS OR FLEXIBLE FORMS MAY BE NECESSARY AT THESE LOCATIONS.
- TO OBTAIN THE CORRECT FORM GRADES AT LOW POINTS WHERE INTAKES ARE LOCATED, THE CONTRACTOR MUST EXERCISE ADDITIONAL CARE WHEN PAVING FULL WIDTH PAVEMENTS. THIS MAY REQUIRE POURING ONE HALF OF THE PAVEMENT AT A TIME OR OTHER METHODS APPROVED BY THE ENGINEER.
- THE CONTRACTOR MAY BE REQUIRED AS DIRECTED BY THE CITY, TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY. THIS WILL BE INCIDENTAL TO THE BID ITEM TRAFFIC CONTROL.
- THE CONTRACTOR IS REQUIRED TO BE FAMILIAR WITH AND COMPLY WITH OSHA STANDARDS. NOTHING WITHIN THESE PLANS SHALL RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.
- PLAN AND PROFILE SHEETS INCLUDED IN THE PROJECT ARE FOR THE PURPOSE OF ALIGNMENT, LOCATION AND SPECIFIC DIRECTIONS FOR WORK TO BE PERFORMED UNDER THIS CONTRACT. IRRELEVANT DATA ON THESE SHEETS IS NOT TO BE CONSIDERED A PART OF THIS CONTRACT.
- ALL MATERIAL TESTING SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.
- ALL CONNECTIONS TO EXISTING PUBLIC STORM AND SANITARY SEWER STRUCTURES SHALL BE CORE DRILLED.
- ALL CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS AND/OR ANY CONNECTIONS TO PUBLIC SEWERS AND STREETS SHALL COMPLY WITH THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS AND THE WEST DES MOINES METROPOLITAN DESIGN STANDARDS MANUAL WITH WEST DES MOINES ADDENDA.
- SANITARY SEWER AND WATER MAIN DESIGN WITHIN THIS PLAN SET ARE INTENDED TO COMPLY WITH THE TEN STATES STANDARDS.
- FOR MAINLINE PAVING, THE CONTRACTOR SHALL SUBMIT THE PCC MIX SOURCE(S) TO THE WEST DES MOINES PUBLIC WORKS DEPARTMENT (CLINT CARPENTER 222-3480) A MINIMUM OF 24 HOURS PRIOR TO PLACEMENT. THE CONTRACTOR SHALL USE THE SAME PCC MIX SOURCE FOR A MINIMUM OF 500 CUBIC YARDS OF CONTINUOUS PAVING.
- IF ADDITIONAL PAVEMENT REMOVAL IS REQUIRED OTHER THAN A STANDARD BOX OUT, FULL PANEL REMOVAL WILL BE REQUIRED. NO HALF PANEL REMOVAL WILL BE ALLOWED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE WEST DES MOINES WATER WORKS AND CITY'S CROSS-CONNECTION CONTROL/CONTAINMENT PROGRAM.
- ALL PUBLIC SEWERS CONSTRUCTED AS PART OF THIS PLAT SHALL BE TELEVISED AS PART OF THE FINAL INSPECTION. CONTACT WDM PUBLIC WORKS (RON WIESE 222-3480) 48-HOUR IN ADVANCE TO SCHEDULE TELEVISIONING.
- CONDUCT OPERATIONS SO THAT SLURRY FROM CONCRETE CUTTING AND/OR GRINDING ACTIVITIES DOES NOT DISCHARGE TO STORM SEWER OR DRAINAGEWAYS.
- ROTATE ECCENTRIC CONE SECTIONS ON ALL MANHOLES NEAR SIDEWALKS TO MAXIMUM DISTANCE BETWEEN MANHOLE COVER AND SIDEWALK.
- CONTACT PERSON RESPONSIBLE FOR ENSURING MUD AND ROCK ARE CLEANED OFF THE STREETS AND FOR INSTALLATION, PERIODIC CHECKING, AND REINSTALLATION OF EROSION CONTROL MEASURES IS:
- COORDINATE STAGING AND TRAFFIC CONTROL WITH WDM EMERGENCY SERVICES.
- LANE CLOSURE NOTICES MUST BE SUBMITTED TO CITY OF WDM PUBLIC WORKS FOR APPROVAL A MINIMUM OF 48 HOURS IN ADVANCE OF CLOSURE.

WOODLAND HILLS OF WEST DES MOINES
 PLAT 3
 QUANTITIES, BID ITEM REFERENCE NOTES AND
 GENERAL NOTES

WEST DES MOINES, IOWA

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410

TECH: MDM
 ENGINEER: JAT

DATE: 10-12-16
 09-15-16
 08-18-16
 06-28-16

REVISIONS
 FOURTH SUBMITTAL
 THIRD SUBMITTAL
 SECOND SUBMITTAL
 FIRST SUBMITTAL

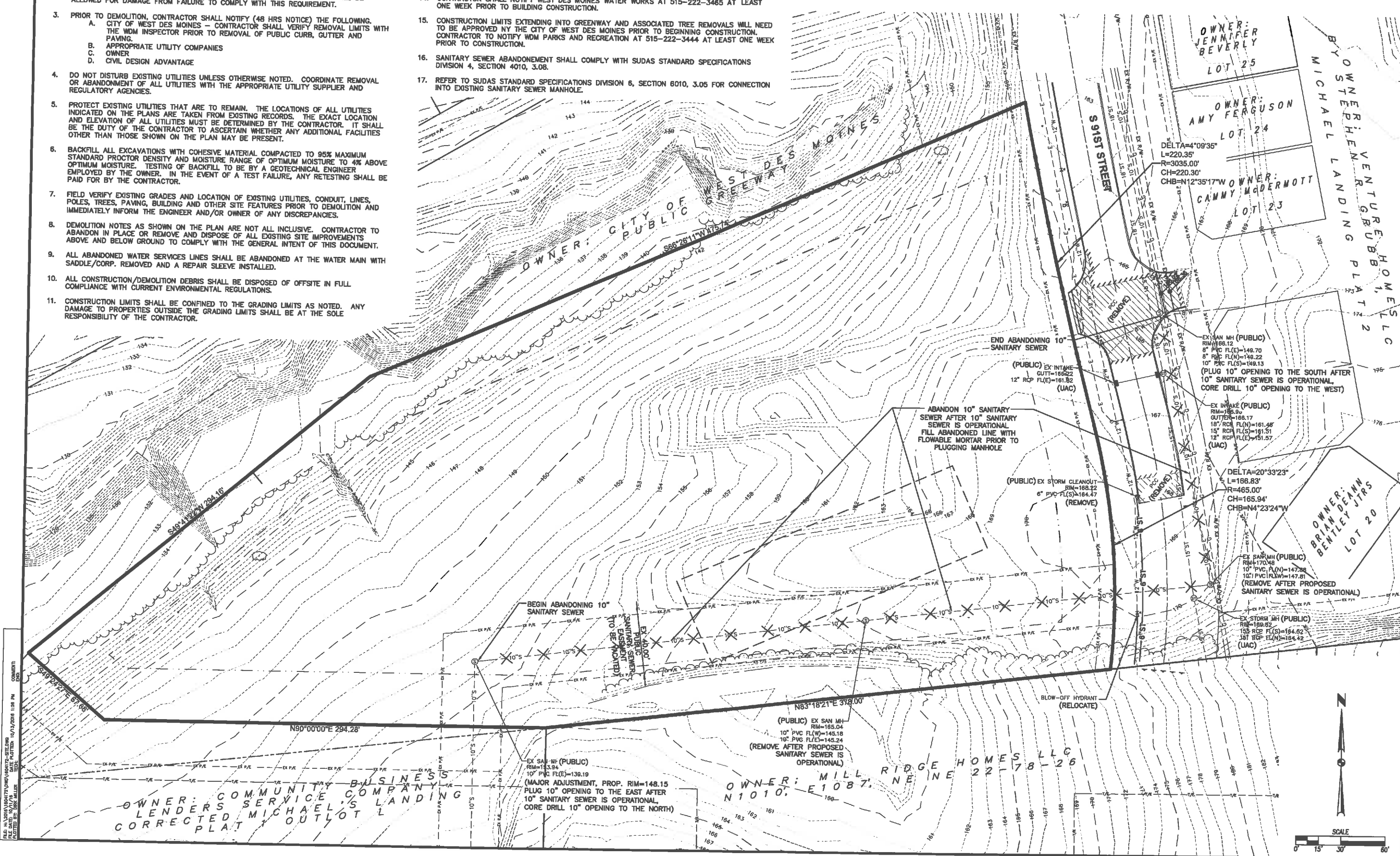
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DEMOLITION NOTES

- THIS PROJECT REQUIRES AN IOWA NPDES PERMIT #2. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMIT AND INITIAL STORM WATER POLLUTION PREVENTION PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE STORM WATER POLLUTION PREVENTION PLAN THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER OR ENGINEER AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
- PRIOR TO DEMOLITION, CONTRACTOR SHALL NOTIFY (48 HRS NOTICE) THE FOLLOWING:
 - CITY OF WEST DES MOINES - CONTRACTOR SHALL VERIFY REMOVAL LIMITS WITH THE WDM INSPECTOR PRIOR TO REMOVAL OF PUBLIC CURB, GUTTER AND PAVING.
 - APPROPRIATE UTILITY COMPANIES
 - OWNER
 - CIVIL DESIGN ADVANTAGE
- DO NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE NOTED. COORDINATE REMOVAL OR ABANDONMENT OF ALL UTILITIES WITH THE APPROPRIATE UTILITY SUPPLIER AND REGULATORY AGENCIES.
- PROTECT EXISTING UTILITIES THAT ARE TO REMAIN. THE LOCATIONS OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLAN MAY BE PRESENT.
- BACKFILL ALL EXCAVATIONS WITH COHESIVE MATERIAL COMPACTED TO 95% MAXIMUM STANDARD PROCTOR DENSITY AND MOISTURE RANGE OF OPTIMUM MOISTURE TO 4% ABOVE OPTIMUM MOISTURE. TESTING OF BACKFILL TO BE BY A GEOTECHNICAL ENGINEER EMPLOYED BY THE OWNER. IN THE EVENT OF A TEST FAILURE, ANY RETESTING SHALL BE PAID FOR BY THE CONTRACTOR.
- FIELD VERIFY EXISTING GRADES AND LOCATION OF EXISTING UTILITIES, CONDUIT, LINES, POLES, TREES, PAVING, BUILDING AND OTHER SITE FEATURES PRIOR TO DEMOLITION AND IMMEDIATELY INFORM THE ENGINEER AND/OR OWNER OF ANY DISCREPANCIES.
- DEMOLITION NOTES AS SHOWN ON THE PLAN ARE NOT ALL INCLUSIVE. CONTRACTOR TO ABANDON IN PLACE OR REMOVE AND DISPOSE OF ALL EXISTING SITE IMPROVEMENTS ABOVE AND BELOW GROUND TO COMPLY WITH THE GENERAL INTENT OF THIS DOCUMENT.
- ALL ABANDONED WATER SERVICES LINES SHALL BE ABANDONED AT THE WATER MAIN WITH SADDLE/CORP. REMOVED AND A REPAIR SLEEVE INSTALLED.
- ALL CONSTRUCTION/DEMOLITION DEBRIS SHALL BE DISPOSED OF OFFSITE IN FULL COMPLIANCE WITH CURRENT ENVIRONMENTAL REGULATIONS.
- CONSTRUCTION LIMITS SHALL BE CONFINED TO THE GRADING LIMITS AS NOTED. ANY DAMAGE TO PROPERTIES OUTSIDE THE GRADING LIMITS SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL WORK SHALL BE IN ACCORDANCE WITH OSHA STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
- THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS AND THE DES MOINES METROPOLITAN DESIGN STANDARDS MANUAL WITH ALL WEST DES MOINES ADDENDUMS SHALL APPLY TO ALL WORK ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.
- CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS AT 515-222-3485 AT LEAST ONE WEEK PRIOR TO BUILDING CONSTRUCTION.
- CONSTRUCTION LIMITS EXTENDING INTO GREENWAY AND ASSOCIATED TREE REMOVALS WILL NEED TO BE APPROVED BY THE CITY OF WEST DES MOINES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR TO NOTIFY WDM PARKS AND RECREATION AT 515-222-3444 AT LEAST ONE WEEK PRIOR TO CONSTRUCTION.
- SANITARY SEWER ABANDONEMENT SHALL COMPLY WITH SUDAS STANDARD SPECIFICATIONS DIVISION 4, SECTION 4010, 3.08.
- REFER TO SUDAS STANDARD SPECIFICATIONS DIVISION 6, SECTION 8010, 3.05 FOR CONNECTION INTO EXISTING SANITARY SEWER MANHOLE.

UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN. A REQUEST WAS MADE TO IOWA ONE CALL FOR THE UTILITY PROVIDERS TO LOCATE THEIR UTILITIES IN THE FIELD.



DATE	10/12/18
FOURTH SUBMITTAL	09/15/18
THIRD SUBMITTAL	08/10/18
SECOND SUBMITTAL	08/10/18
FIRST SUBMITTAL	08/29/18

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CIVIL DESIGN ADVANTAGE

WOODLAND HILLS OF WEST DES MOINES
PLAT 3
DEMOLITION PLAN - TOPOGRAPHIC SURVEY
WEST DES MOINES, IOWA

5/11
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GENERAL NOTES

- THE MOST RECENT EDITION OF THE WEST DES MOINES STANDARDS FOR SUBDIVISIONS AND THE WEST DES MOINES WATER WORKS STANDARD SPECIFICATIONS FOR SUBDIVISIONS SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
- ALL WORK SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
- ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
- PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
- ALL CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENT, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS, DSM METRO DESIGN STANDARDS AND WDM ADDENDUMS.
- AT LEAST ONE WEEK PRIOR TO ANY CONSTRUCTION WITHIN PUBLIC R.O.W./EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREET, THE CONTRACTOR SHALL CONTACT THE WDM CONSTRUCTION DIVISION ('CLINT CARPENTER' 22-3480) TO OBTAIN APPLICABLE CITY PERMITS THAT MAY BE NECESSARY. IT IS IMPORTANT TO NOTE CITY APPROVAL OF THIS PLAN IS SUBJECT TO THE APPLICANT OBTAINING ALL NECESSARY EASEMENTS AND APPLICABLE PERMITS.
- ALL DIMENSIONS ARE TO BACK OF CURB, BUILDING FACE OR PROPERTY LINE UNLESS OTHERWISE NOTED.
- CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
- PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
- REMOVE ALL DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY.
- ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
- DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
- THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
- THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OR THE CITY.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
- REFER TO PUBLIC IMPROVEMENT PLANS FOR CONCRETE REMOVAL FOR DRIVEWAY APPROACHES.
- ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACTOR BID.
- NO OUTDOOR DUMPSTERS ARE PROPOSED AT THIS TIME.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY (48 HRS NOTICE) THE FOLLOWING.
 - A. CITY OF WEST DES MOINES
 - B. APPROPRIATE UTILITY COMPANIES
 - C. OWNER
 - D. CIVIL DESIGN ADVANTAGE
- ALL OUTLOTS ARE UNBUILDABLE.

TRAFFIC CONTROL NOTES

- ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE CLOSURES.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
- THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
- SIDEWALK/ PATH CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES. SIGNAGE AND TEMPORARY PEDESTRIAN ROUTE THROUGH CONSTRUCTION AREA SHALL MEET THE REQUIREMENTS OF PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG), SECTION R205 AND IOWA DOT DESIGN MANUAL, CHAPTER 12A-4.
- THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
- ALL SIGNING AND LANE STRIPING SHALL COMPLY WITH MUTCD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.

OPEN SPACE CALCULATIONS

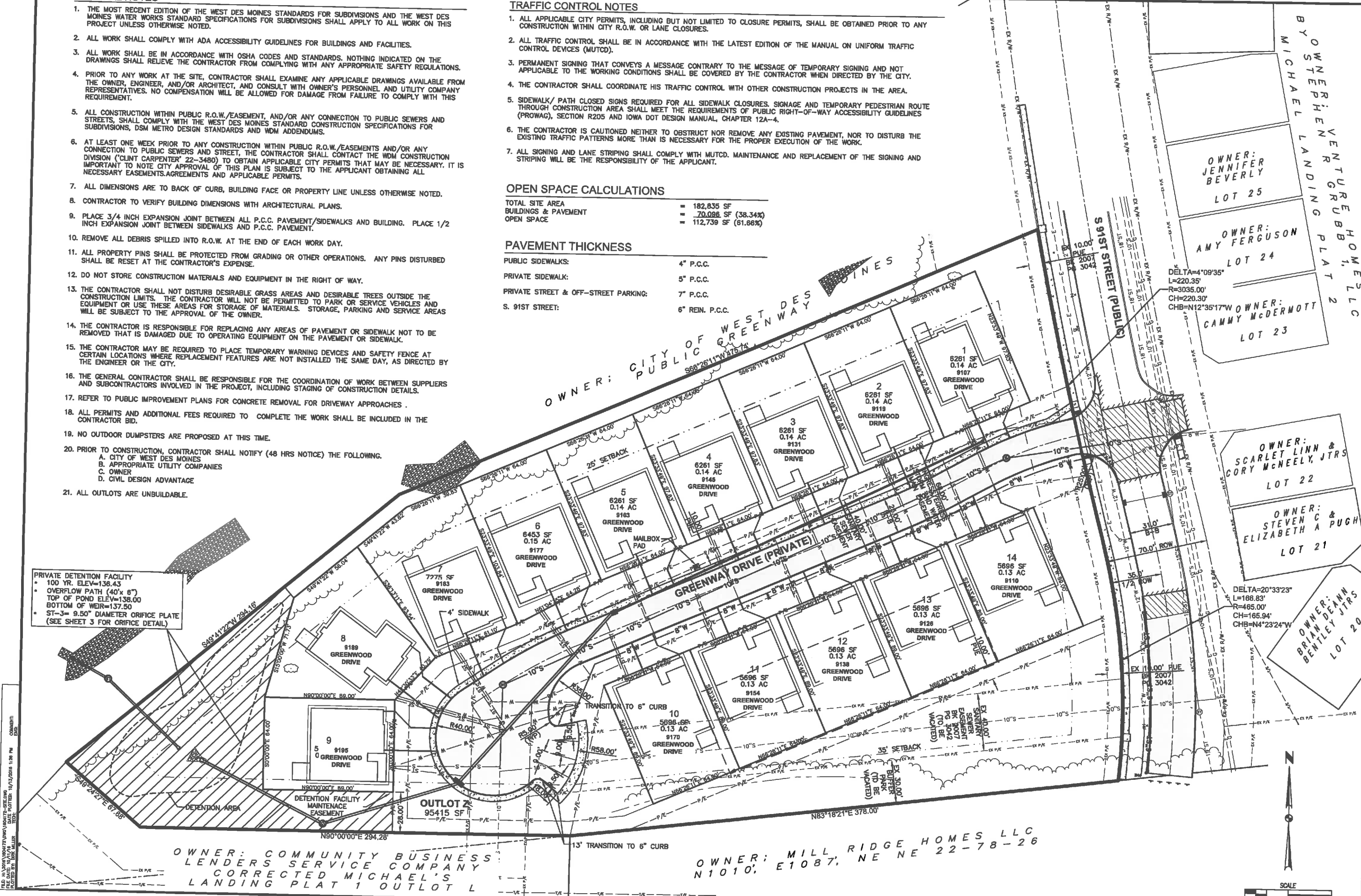
TOTAL SITE AREA	= 182,835 SF
BUILDINGS & PAVEMENT	= 70,096 SF (38.34%)
OPEN SPACE	= 112,739 SF (61.66%)

PAVEMENT THICKNESS

PUBLIC SIDEWALKS:	4" P.C.C.
PRIVATE SIDEWALK:	5" P.C.C.
PRIVATE STREET & OFF-STREET PARKING:	7" P.C.C.
S. 91ST STREET:	6" REIN. P.C.C.

PRIVATE DETENTION FACILITY

- 100 YR. ELEV=136.43
- OVERFLOW PATH (40'x 6')
- TOP OF POND ELEV=138.00
- BOTTOM OF WEIR=137.50
- ST-3= 9.50" DIAMETER ORIFICE PLATE (SEE SHEET 3 FOR ORIFICE DETAIL)



DATE	REVISIONS
10-12-16	FOURTH SUBMITTAL
09-15-16	THIRD SUBMITTAL
09-16-16	SECOND SUBMITTAL
08-28-16	FIRST SUBMITTAL

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TECH: MDM
ENGINEER: JAT



WOODLAND HILLS OF WEST DES MOINES
PLAT 3
DIMENSION PLAN

6/11
1604.172

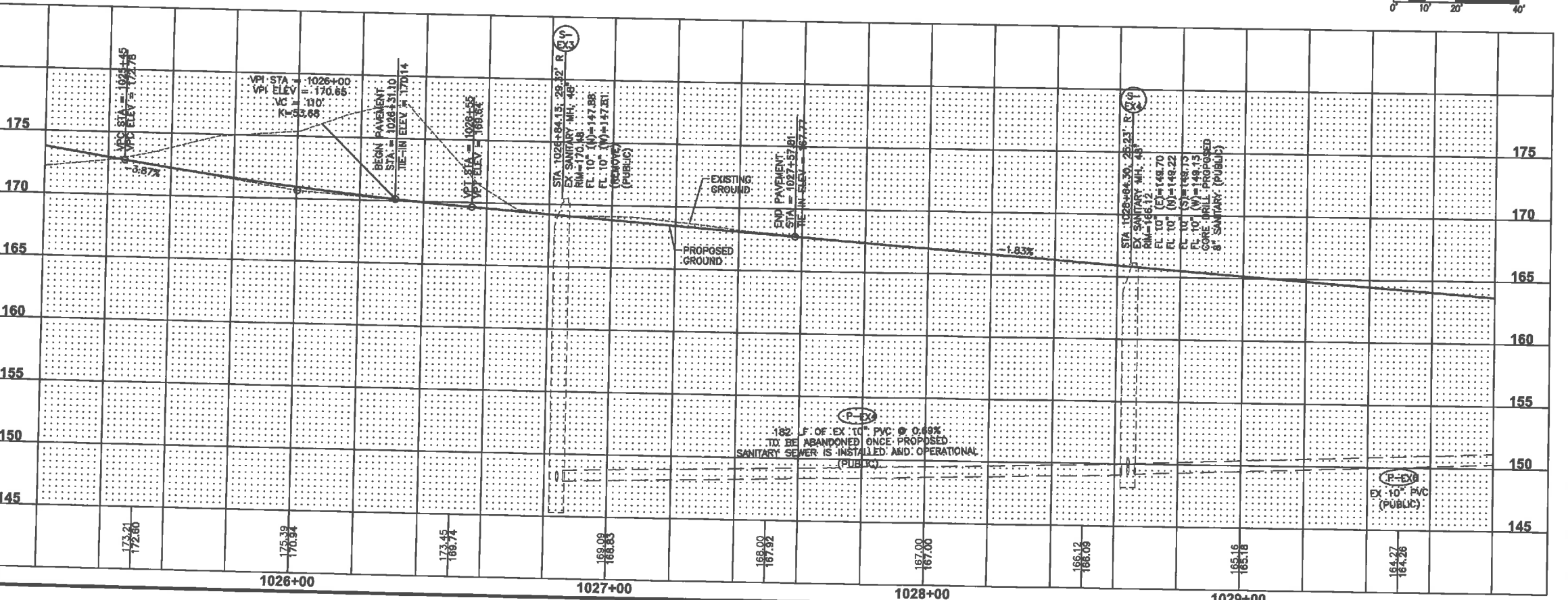
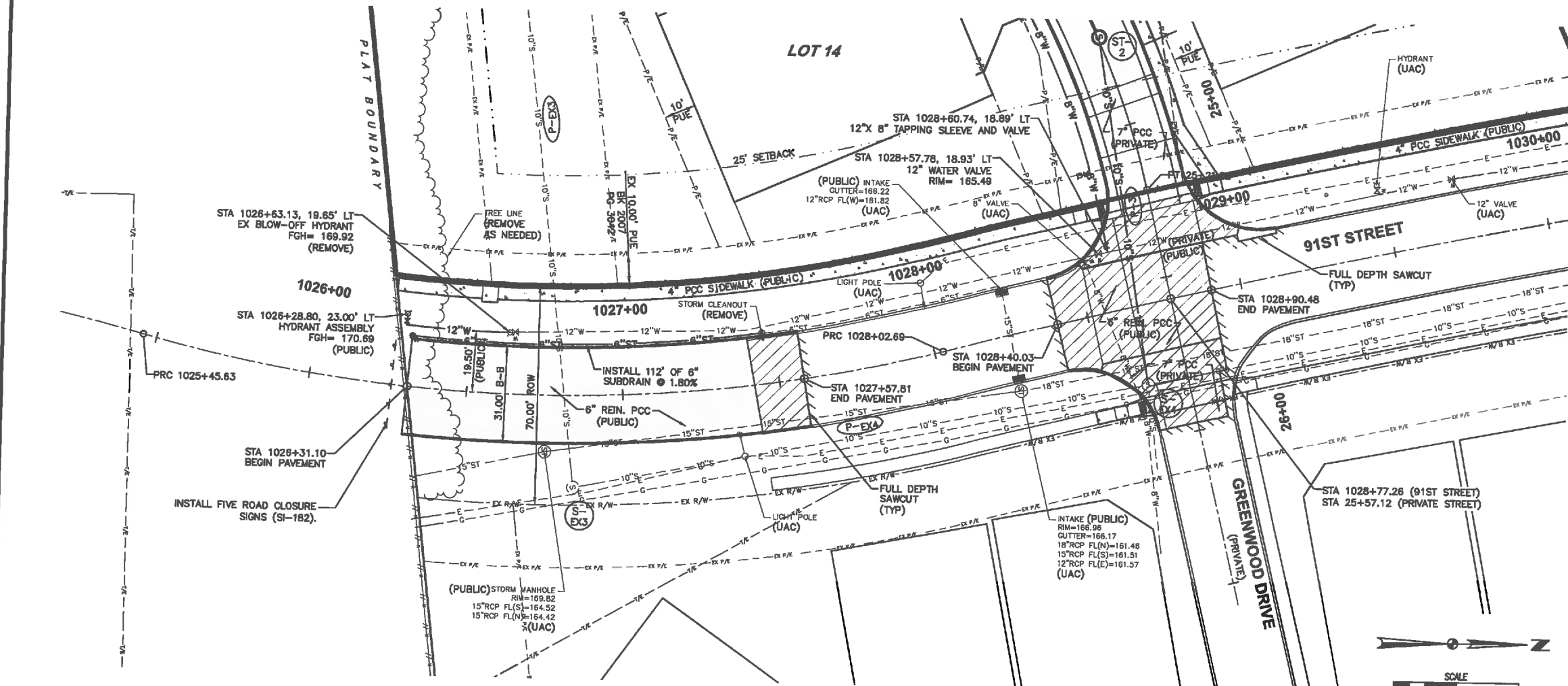
REFER TO SEPARATE PUBLIC IMPROVEMENT PLANS FOR PUBLIC SANITARY SEWER, PUBLIC STORM SEWER, PUBLIC WATER MAIN AND PUBLIC STREET INFORMATION.

UTILITY NOTES

- REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
- FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
- ALL UTILITIES SHALL BE STUBBED TO 5 FEET FROM BUILDINGS. REFER TO MEP PLANS FOR DESIGN FROM 5' OUTSIDE OF BUILDING FACE.
- ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES.
- ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF WEST DES MOINES PLUMBING CODE.
- 12" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN. 18" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND WATER MAIN.
- MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
- WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
- PRIVATE UTILITIES TO BE INSTALLED PER THE CITY OF WEST DES MOINES STANDARD CONSTRUCTION SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2012 UNIFORM PLUMBING CODE. CONTACT BUILDING INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS.
- OWNER IS RESPONSIBLE FOR MAINTENANCE OF PRIVATE UTILITIES.
- CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO NEW AND EXISTING SEWER SYSTEMS. SHOULD ANY CONTAMINATION OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN AT NO COST TO THE OWNER. INSTALL SILT FENCE AT ALL PERMANENT STORM SEWER INLETS.
- ALL SANITARY SEWER SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH THE WDM STANDARD CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS.
- ALL SANITARY SEWER MH'S WITHIN PAVING SHALL HAVE A 3 PIECE CASTING. IF AN EXISTING PUBLIC SANITARY SEWER MH IS REPLACED WITH A 3 PIECE CASTING PUBLIC WORKS WILL NEED TO BE CONTACTED TO PICK UP THE OLD CASTING. CONTACT WEST DES MOINES PUBLIC WORKS (RON WEISE 222-3480).

WEST DES MOINES WATER WORKS NOTES

- ALL WATER WORK, PUBLIC OR PRIVATE, SHALL BE DONE IN ACCORDANCE WITH SDAS AND WEST DES MOINES WATER WORKS GENERAL SUPPLEMENTAL SPECIFICATIONS.
- CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS AT LEAST ONE WEEK PRIOR TO CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
- CONTACT BUILDING INSPECTION (515-222-3630) A MINIMUM OF 24 HOURS IN ADVANCE FOR PRIVATE UTILITY INSPECTIONS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE WEST DES MOINES WATER WORKS AND CITY'S CROSS-CONNECTION CONTROL/CONTAINMENT PROVISION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION OF AN APPROVED BACKFLOW PREVENTION ASSEMBLY(S) FOR CONTAINMENT IN ALL NEW CONSTRUCTION. BACKFLOW PREVENTION TO BE INSTALLED PER CITY ORDINANCE 1297, 54-1998. CONTRACTOR SHALL NOTIFY WEST DES MOINES WATER WORKS, RALPH RENTERIA, ENGINEERING TECHNICIAN (515)-222-3465) A MINIMUM OF 24 HOURS AFTER INSTALLATION AND TESTING OF ALL BACKFLOW DEVICES TO SCHEDULE FINAL INSPECTION.
- BUILDING FIRE SPRINKLER AND FIRE ALARM SYSTEM SHALL BE DESIGNED PER WEST DES MOINES FIRE CODE. SCHEDULE A PRESSURE AND FLOW TEST PRIOR TO DESIGNING FIRE SUPPRESSION SYSTEMS.
- WATER SHALL BE PROVIDED TO PROPERTY VIA PRIVATE WATER MAIN. OWNER SHALL ALLOW WEST DES MOINES WATER WORKS ACCESS TO THE METERS AND VALVES AS NEEDED FOR EMERGENCY MAINTENANCE AND SHUT OFF IN THE EVENT OF NON-PAYMENT.
- WEST DES MOINES WATER WORKS WILL TAKE OWNERSHIP OF S 91ST STREET WATER MAIN. GREENWOOD DRIVE MAIN WILL BE PRIVATELY OWNED AND MAINTAINED.
- WATER PRESSURE IN THIS AREA IS SUBJECT TO CHANGE. CONTACT WEST DES MOINES WATER WORKS FOR INFORMATION.



DATE: _____

REVISIONS: _____

3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

TECH: MDM

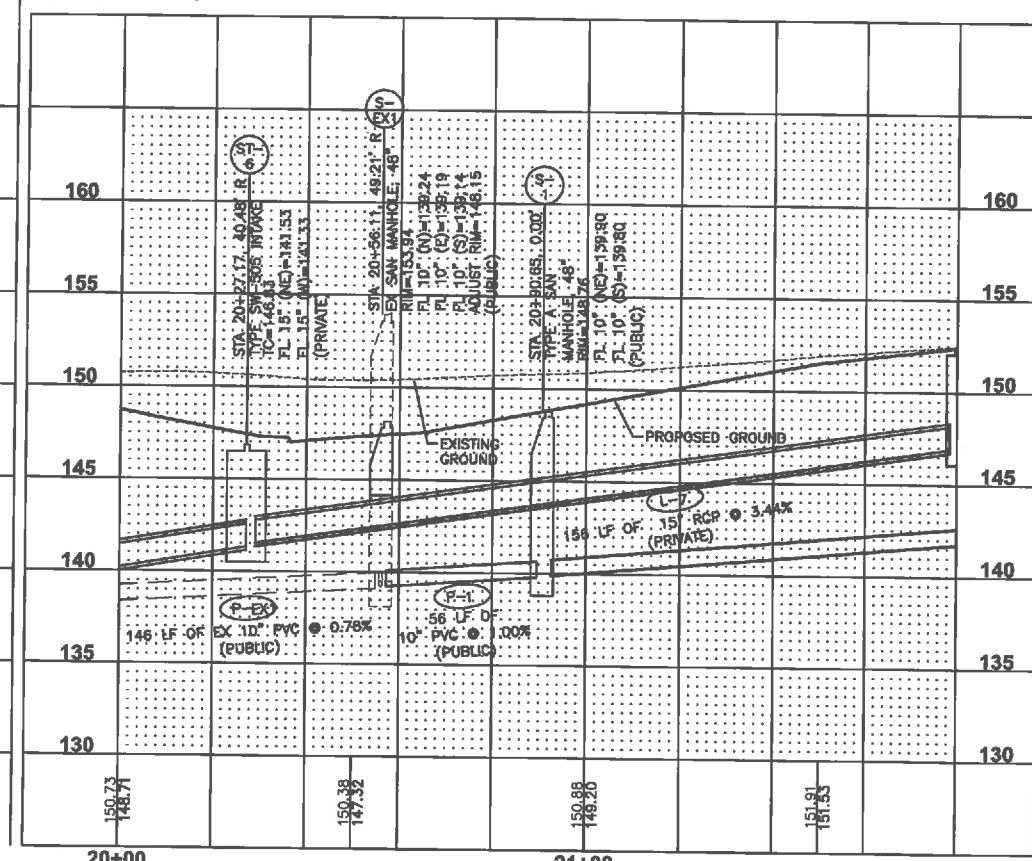
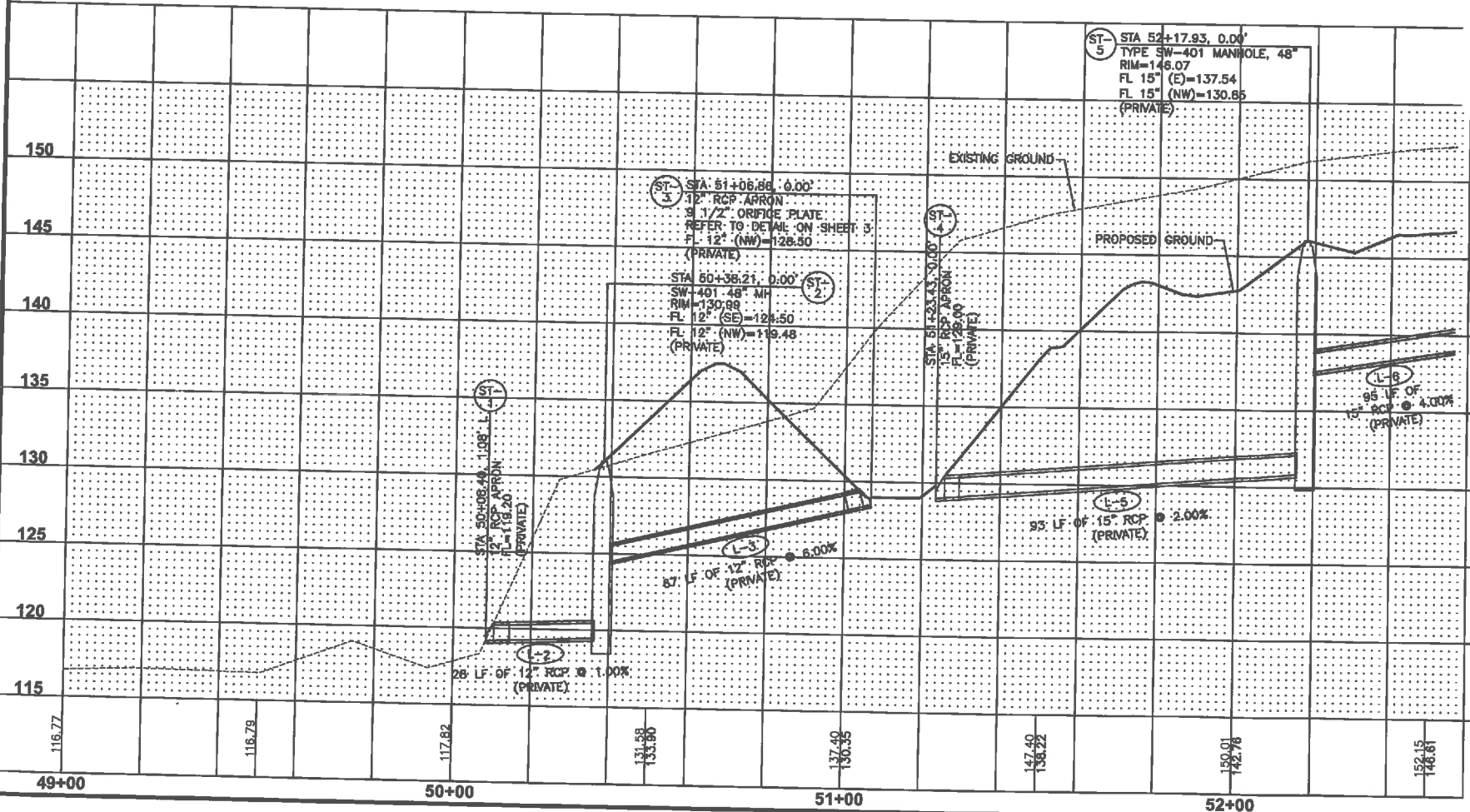
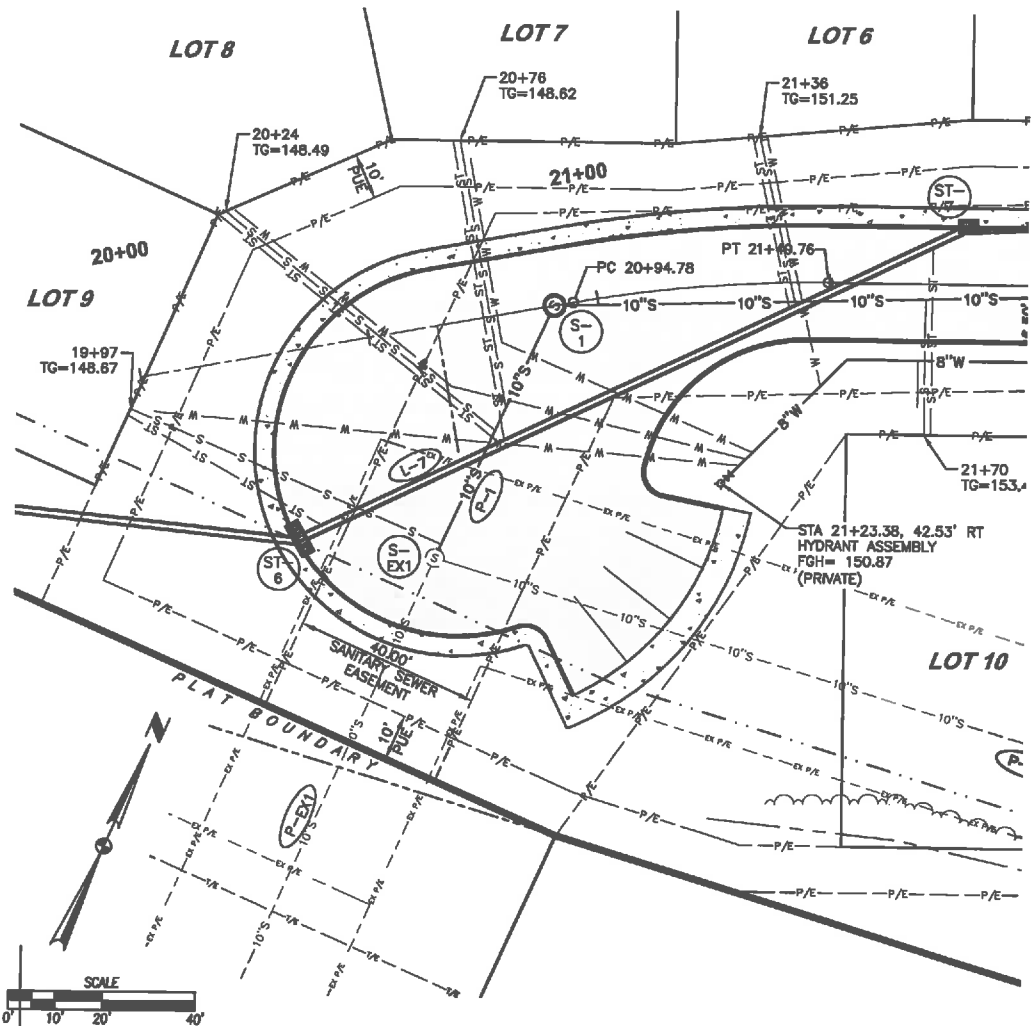
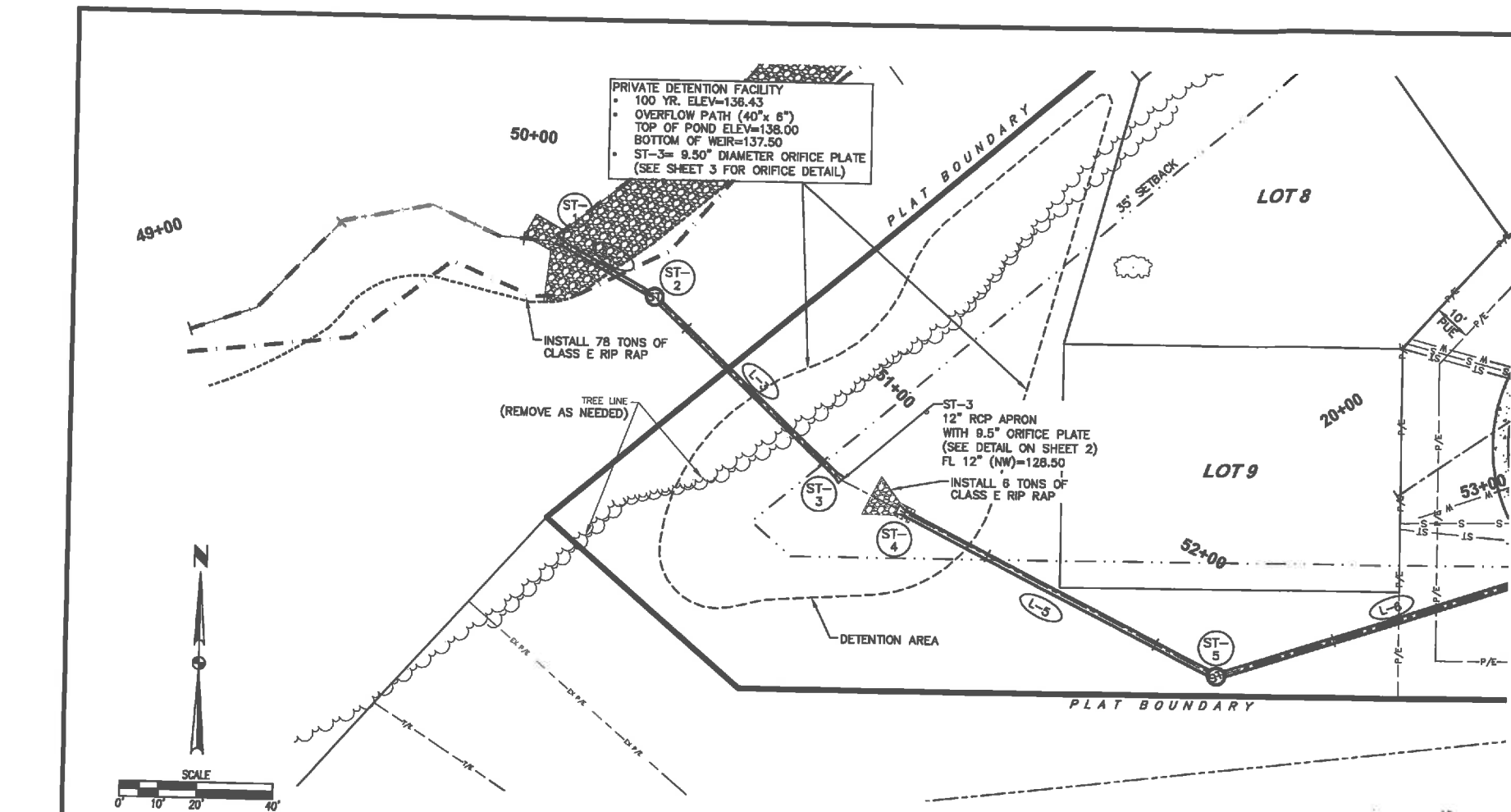
ENGINEER: JAT

WDM CIVIL DESIGN ADVANTAGE

WOODLAND HILLS OF WEST DES MOINES
PLAT 3
PLAN AND PROFILE

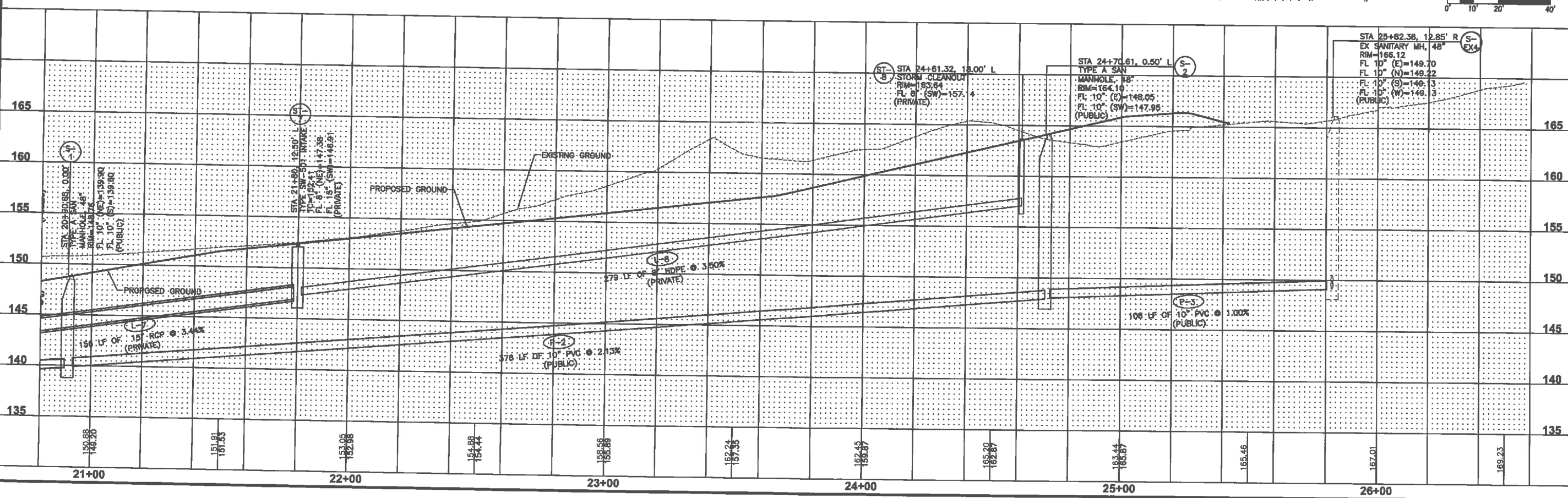
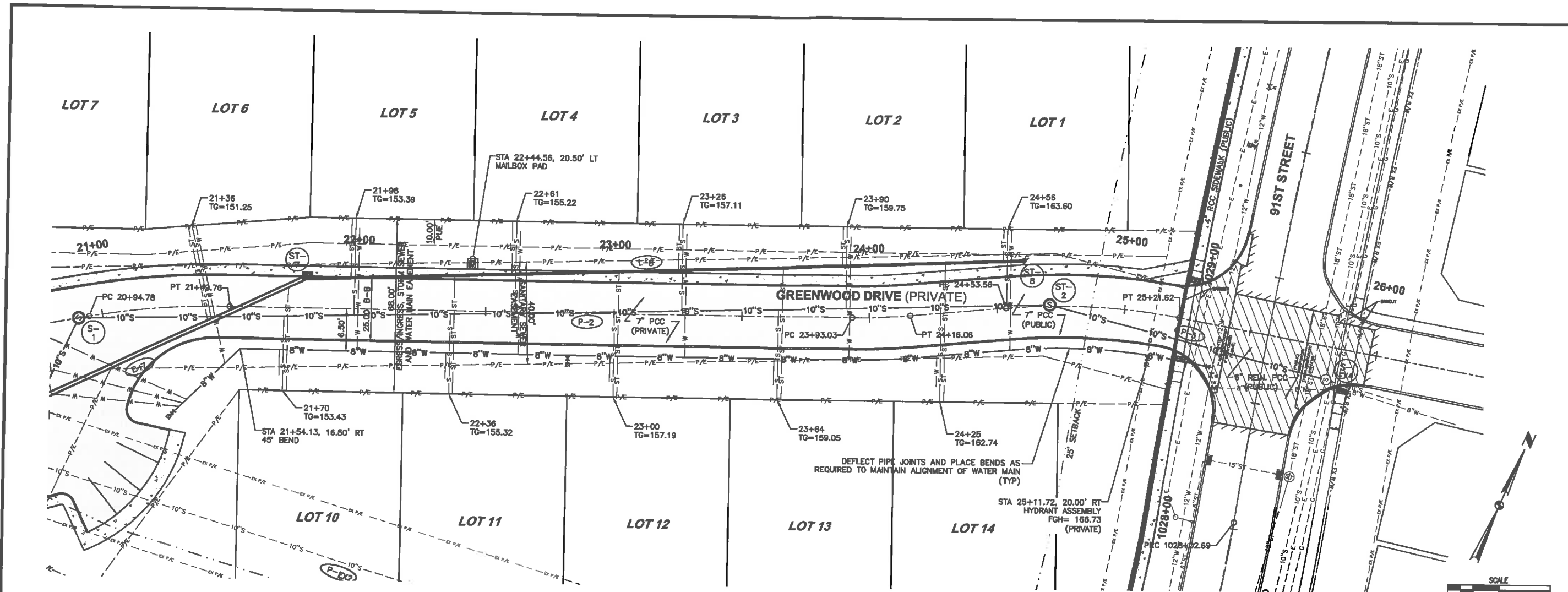
WEST DES MOINES, IOWA

7/11
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DATE: 10/17/2018 1:18 PM
 DRAWN BY: JAT
 CHECKED BY: JAT
 PROJECT: 1604.172

WOODLAND HILLS OF WEST DES MOINES PLAT 3 PLAN AND PROFILE	WOODLAND HILLS OF WEST DES MOINES, IOWA CIVIL DESIGN ADVANTAGE TECH: MDM
3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410	ENGINEER: JAT TECH: MDM FIRST SUBMITTAL 08-28-18



FILE: N:\2016\WOODLAND HILLS\WOODLAND HILLS\PLAT 3\10/15/2016 1:18 PM
 COMMENT: 10/15/2016 1:18 PM
 PLOTTED BY: JMM

DATE	REVISIONS
	FIRST SUBMITTAL
05-28-16	

3405 S.E. CROSSROADS DRIVE, SUITE G
 WEST DES MOINES, IOWA 50111
 PHONE: (515) 389-4400 FAX: (515) 389-4410

TECH: MDW
 ENGINEER: JAT



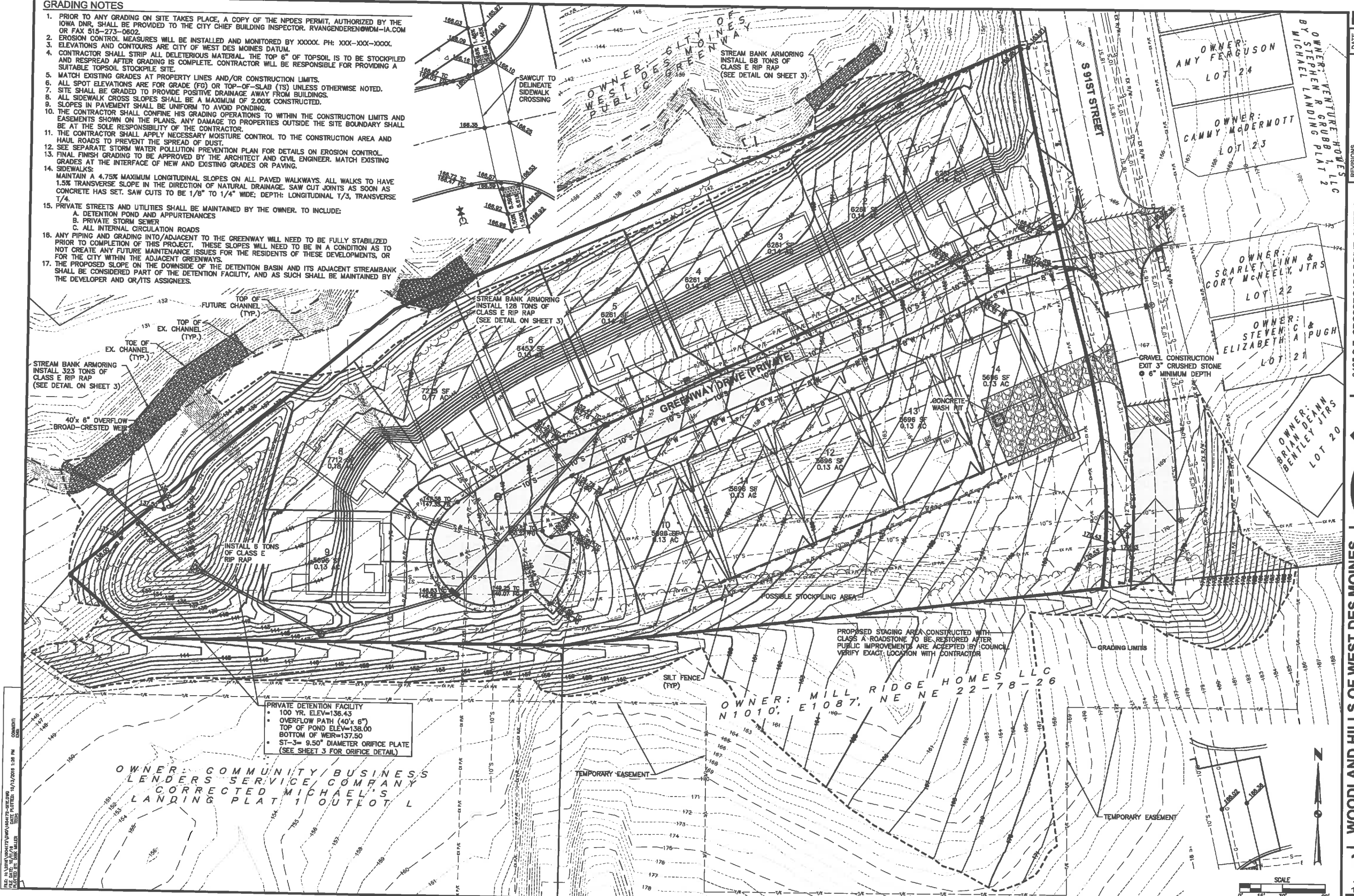
WOODLAND HILLS OF WEST DES MOINES
 PLAT 3
 PLAN AND PROFILE

WEST DES MOINES, IOWA

9 / 11
 1604.172

GRADING NOTES

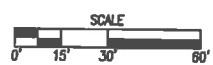
1. PRIOR TO ANY GRADING ON SITE TAKES PLACE, A COPY OF THE NPDES PERMIT, AUTHORIZED BY THE IOWA DNR, SHALL BE PROVIDED TO THE CITY CHIEF BUILDING INSPECTOR. RVANGENDEREN@WDM-IA.COM OR FAX 515-273-0602.
2. EROSION CONTROL MEASURES WILL BE INSTALLED AND MONITORED BY XXXXX. PH: XXX-XXX-XXXX.
3. ELEVATIONS AND CONTOURS ARE CITY OF WEST DES MOINES DATUM.
4. CONTRACTOR SHALL STRIP ALL DELETERIOUS MATERIAL. THE TOP 6" OF TOPSOIL IS TO BE STOCKPILED AND RESPREAD AFTER GRADING IS COMPLETE. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A SUITABLE TOPSOIL STOCKPILE SITE.
5. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
6. ALL SPOT ELEVATIONS ARE FOR GRADE (FG) OR TOP-OF-SLAB (TS) UNLESS OTHERWISE NOTED.
7. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
8. ALL SIDEWALK CROSS SLOPES SHALL BE A MAXIMUM OF 2.00% CONSTRUCTED.
9. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
10. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
11. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAIL ROADS TO PREVENT THE SPREAD OF DUST.
12. SEE SEPARATE STORM WATER POLLUTION PREVENTION PLAN FOR DETAILS ON EROSION CONTROL.
13. FINAL FINISH GRADING TO BE APPROVED BY THE ARCHITECT AND CIVIL ENGINEER. MATCH EXISTING GRADES AT THE INTERFACE OF NEW AND EXISTING GRADES OR PAVING.
14. SIDEWALKS:
MAINTAIN A 4.75% MAXIMUM LONGITUDINAL SLOPES ON ALL PAVED WALKWAYS. ALL WALKS TO HAVE 1.5% TRANSVERSE SLOPE IN THE DIRECTION OF NATURAL DRAINAGE. SAW CUT JOINTS AS SOON AS CONCRETE HAS SET. SAW CUTS TO BE 1/8" TO 1/4" WIDE; DEPTH: LONGITUDINAL T/3, TRANSVERSE T/4.
15. PRIVATE STREETS AND UTILITIES SHALL BE MAINTAINED BY THE OWNER. TO INCLUDE:
A. DETENTION POND AND APPURTENANCES
B. PRIVATE STORM SEWER
C. ALL INTERNAL CIRCULATION ROADS
16. ANY PIPING AND GRADING INTO/ADJACENT TO THE GREENWAY WILL NEED TO BE FULLY STABILIZED PRIOR TO COMPLETION OF THIS PROJECT. THESE SLOPES WILL NEED TO BE IN A CONDITION AS TO NOT CREATE ANY FUTURE MAINTENANCE ISSUES FOR THE RESIDENTS OF THESE DEVELOPMENTS, OR FOR THE CITY WITHIN THE ADJACENT GREENWAYS.
17. THE PROPOSED SLOPE ON THE DOWNSIDE OF THE DETENTION BASIN AND ITS ADJACENT STREAMBANK SHALL BE CONSIDERED PART OF THE DETENTION FACILITY, AND AS SUCH SHALL BE MAINTAINED BY THE DEVELOPER AND OR/ITS ASSIGNEES.



PRIVATE DETENTION FACILITY
 • 100 YR. ELEV=136.43
 • OVERFLOW PATH (40'x 6')
 • TOP OF POND ELEV=138.00
 • BOTTOM OF WEIR=137.50
 • ST-3= 9.50" DIAMETER ORIFICE PLATE
 (SEE SHEET 3 FOR ORIFICE DETAIL)

OWNER: COMMUNITY/BUSINESS
 LENDERS SERVICE COMPANY
 CORRECTED MICHAEL'S
 LANDING PLAT 1 OUTLOT L

OWNER: MILL RIDGE HOMES LLC
 N 1010', E 1087', NE 22-78-26



FILE: H:\WORK\PROJECTS\WOODLAND\22-78-26\2016\10-13-2016 12:38 PM
 COMMENT:
 DATE PLOTTED: 10/13/2016 12:38 PM
 PLOTTED BY: JAY MILLER

REVISIONS	DATE	BY
FOURTH SUBMITTAL	10-12-16	JAT
THIRD SUBMITTAL	09-15-16	JAT
SECOND SUBMITTAL	08-18-16	JAT
FIRST SUBMITTAL	08-25-16	JAT

3405 S.E. CROSSROADS DRIVE, SUITE G
 WEST DES MOINES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: JAT TECH: MDM



WOODLAND HILLS OF WEST DES MOINES
PLAT 3
GRADING PLAN
 10/11
 1604.172

LANDSCAPE NOTES

- LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
- ALL CONSTRUCTION SHALL CONFORM TO THE MOST RECENT EDITION OF THE WEST DES MOINES STANDARDS FOR SUBDIVISIONS.
- TYPE, SIZE, AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1
- ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFORMITIES, VOIDS AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS; TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
- SEED ALL OTHER DISTURBED AREAS.
- BACKFILL TO TOP OF CURB. (MINUS 1 1/2" FOR SOD, IF REQ.)
- WEED PREVENTER(PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
- SHREDDED HARDWOOD MULCH SHALL BE PLACED AROUND ALL TREES, SHRUBS AND IN ALL PLANTING BEDS TO A (MIN) DEPTH OF 3". ALL GROUPS OF MORE THAN ONE SHRUB SHALL BE MULCHED IN A CONTINUOUS BED, SEPARATED FROM TURF BY A 3" SPADE-CUT EDGE. MULCH AROUND ALL CONIFEROUS TREES SHALL BE A 10' DIAMETER CIRCLE. ALL EDGING SHALL BE SPADE-CUT EDGE.
- PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY, THE DRAWING SHALL PREVAIL IF ANY CONFLICTS ARISE.
- ALL DEBRIS SPILLED IN THE PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY.
- CONTRACTOR SHALL WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.
- CONTRACTOR SHALL PROVIDE IRRIGATION DESIGN TO OWNER FOR APPROVAL.
- NO OVERSTORY TREES SHALL BE PLANTED IN ANY CITY OF WEST DES MOINES PUBLIC UTILITY EASEMENT.

SCREENING

ALL MECHANICAL UNITS VISIBLE FROM A PUBLIC THOROUGHFARE SHALL BE SCREENED.

PLANT SUBSTITUTIONS

- (2) ORNAMENTAL TREES = (1) OVERSTORY TREE OR EVERGREEN
 - (10) SHRUBS = (1) UNDERSTORY TREE
- NO MORE THAN 50% OF THE REQUIRED PLANT TYPE MAY BE SUBSTITUTED.
- AT LEAST 35% OF TREES REQUIRED ON SITE (SUM OF OPEN SPACE, BUFFER AND PARKING LOT TREES) SHALL BE EVERGREEN.

TOTAL TREES REQUIRED = 43
 EVERGREENS REQUIRED = 15
 EVERGREENS PROVIDED = 21

MINIMUM PLANT SIZES

DECIDUOUS OVERSTORY TREES	= 2" CAL
DECIDUOUS OVERSTORY TREES (CLUMP)	= 1" CAL
EVERGREEN TREES	= 6' HEIGHT
ORNAMENTAL TREES	= 1.5" CAL
DECIDUOUS SHRUBS (3"-5")	= 36" HEIGHT
DECIDUOUS SHRUBS (3"-5")	= 24" HEIGHT
DECIDUOUS SHRUBS (0-3")	= 15" HEIGHT

OPEN SPACE LANDSCAPE REQUIREMENTS

- (2) TREES PER 3000 SF OF REQUIRED OPEN SPACE

SITE AREA = 182,835 SF

OPEN SPACE REQUIRED = 45,709 SF (25%)
 OPEN SPACE PROVIDED = 106,088 SF (58%)

TREES REQUIRED = 31
 TREES PROVIDED = 31

SHRUBS REQUIRED = 46
 SHRUBS PROVIDED = 46

- 50% OF REQUIRED TREES SHALL BE OVERSTORY OR EVERGREEN VARIETY

PLANT SCHEDULE (OPEN SPACE)

CODE	OVERSTORY TREES	SIZE	COND
RO 13	RED OAK	2" CAL	BAR
QU	QUERCUS RUBRA	2" CAL	BAR
CODE	EVERGREEN TREES	SIZE	COND
PI 18	PINUS STROBUS	6" HT.	BAR
PI 13	PINUS STROBUS	6" HT.	BAR
CODE	SHRUBS	SIZE	COND
RO 13	RED OAK	2" CAL	BAR
QU	QUERCUS RUBRA	2" CAL	BAR
PI 18	PINUS STROBUS	6" HT.	CONT
PI 13	PINUS STROBUS	6" HT.	CONT
RO 13	RED OAK	2" CAL	BAR
QU	QUERCUS RUBRA	2" CAL	BAR
PI 18	PINUS STROBUS	6" HT.	CONT
PI 13	PINUS STROBUS	6" HT.	CONT
RO 13	RED OAK	2" CAL	BAR
QU	QUERCUS RUBRA	2" CAL	BAR
PI 18	PINUS STROBUS	6" HT.	CONT
PI 13	PINUS STROBUS	6" HT.	CONT

STREETSCAPE REQUIREMENTS

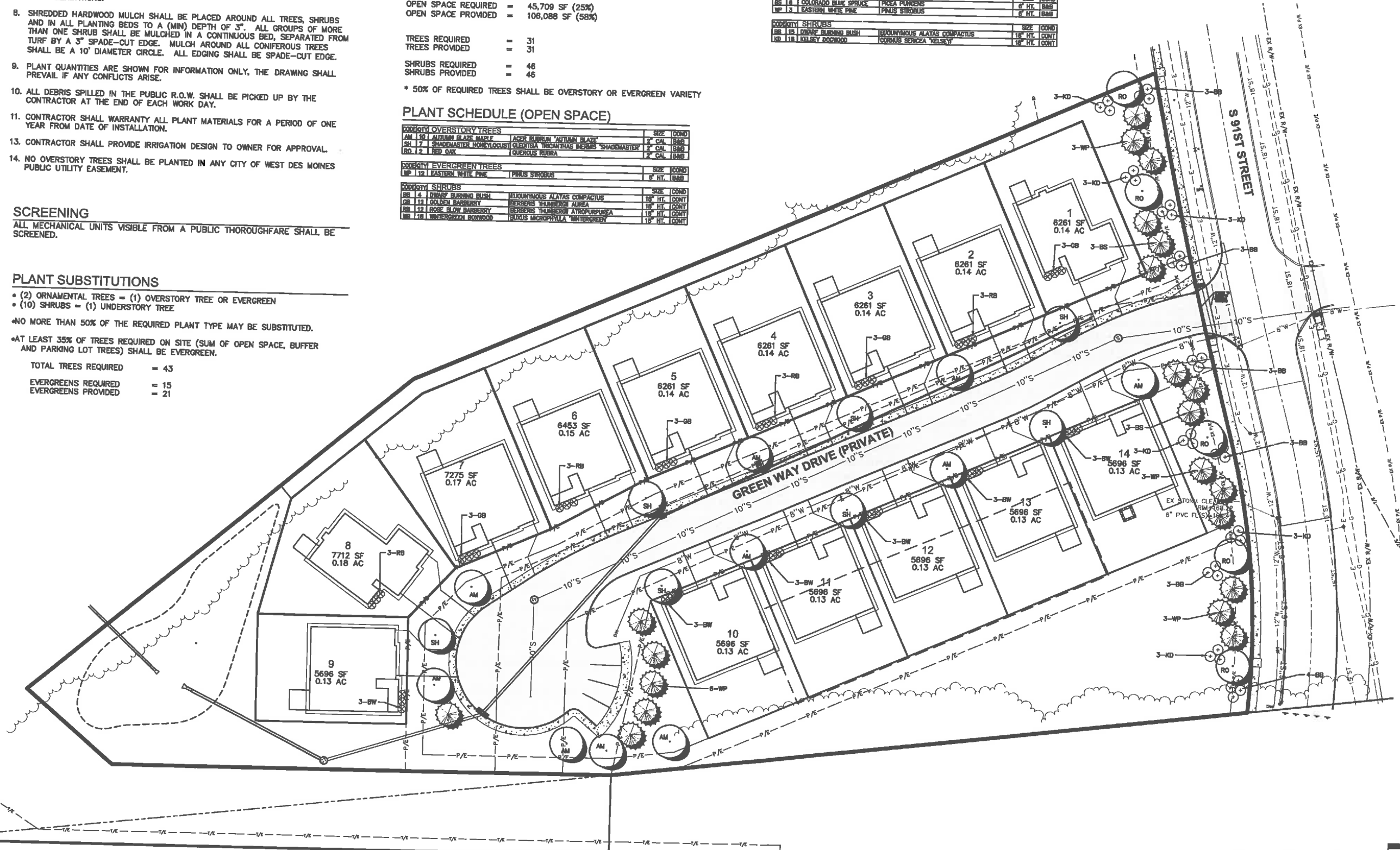
- (1) TREE PER 35 LF OF STREETSCAPE
- (3) SHRUBS PER 35 LF OF STREETSCAPE

S. 91ST ST = 387 LF
 TREES REQUIRED = 12
 TREES PROVIDED = 12

SHRUBS REQUIRED = 32
 SHRUBS PROVIDED = 33

PLANT SCHEDULE (S. 91ST STREETSCAPE)

CODE	OVERSTORY TREES	SIZE	COND
RO 13	RED OAK	2" CAL	BAR
QU	QUERCUS RUBRA	2" CAL	BAR
CODE	EVERGREEN TREES	SIZE	COND
PI 18	PINUS STROBUS	6" HT.	BAR
PI 13	PINUS STROBUS	6" HT.	BAR
CODE	SHRUBS	SIZE	COND
RO 13	RED OAK	2" CAL	BAR
QU	QUERCUS RUBRA	2" CAL	BAR
PI 18	PINUS STROBUS	6" HT.	CONT
PI 13	PINUS STROBUS	6" HT.	CONT



WOODLAND HILLS OF WEST DES MOINES
 PLAT 3
 LANDSCAPE PLAN

3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410

WEST DES MOINES, IOWA

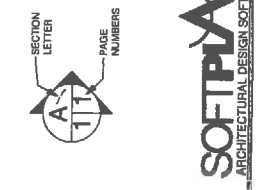
11/11
 1604.172

REVISIONS

DATE	DESCRIPTION
10-12-16	FOURTH SUBMITTAL
09-16-16	THIRD SUBMITTAL
09-16-16	SECOND SUBMITTAL
05-28-16	FIRST SUBMITTAL

ENGINEER: JAT
 TECH: MDM

CIVIL DESIGN ADVANTAGE



SCALE: 1/4" = 1'-0"

DATE: Thursday, March 03, 2016

Main Floor - 1448 sq. ft.
 Garage - 166 sq. ft.
 Covered Deck 0 sq. ft.
 Open Deck - 120 sq. ft.
 Front Porch - 112 sq. ft.
 Basement Finished - 1199 sq. ft.
 (Includes 4th bedroom)
 Basement Unfinished - 249 sq. ft.

Brookridge II
 Elevation Option B
 Garage Left

Brookridge II Ranch

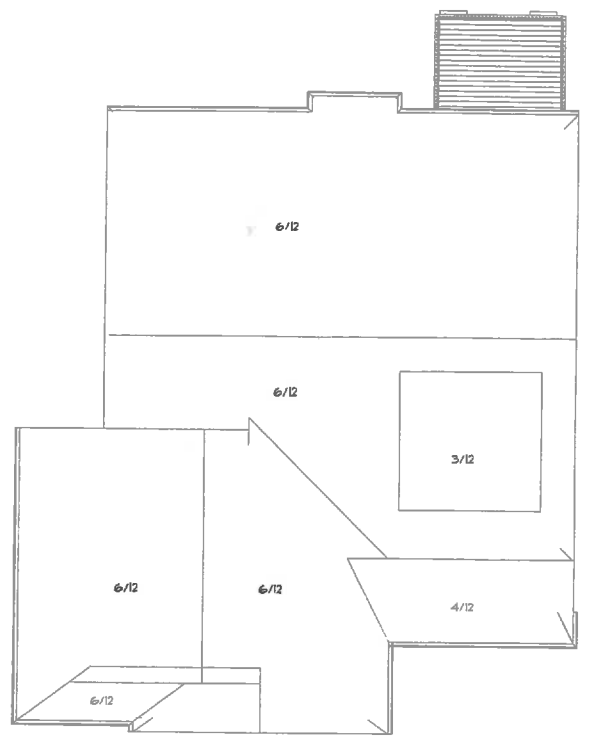
2785 N Ankeny Blvd., Ste. #22
 P.O. Box 369
 Ankeny, Iowa 50023

PHONE: (515) 963-8335
 FAX: (515) 963-0457

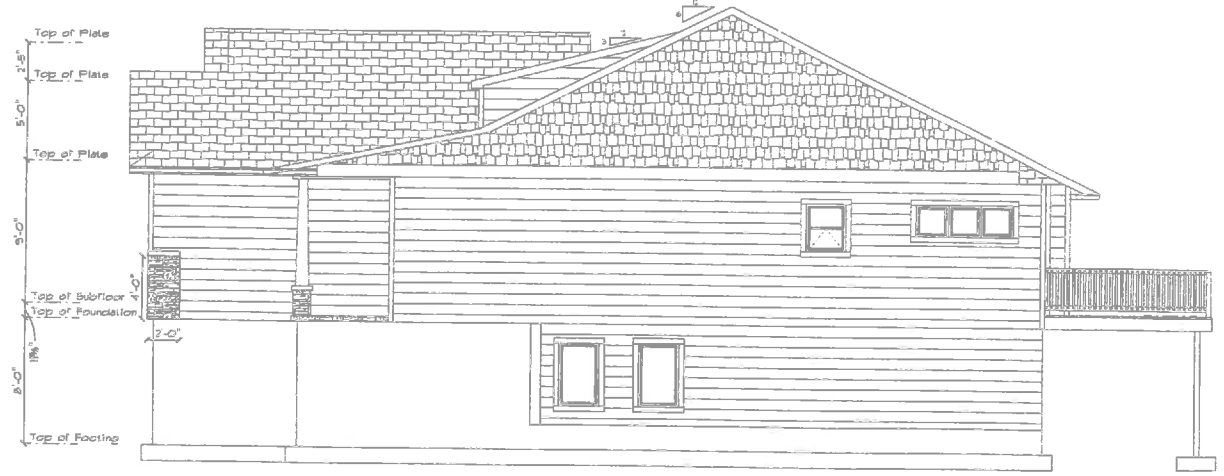
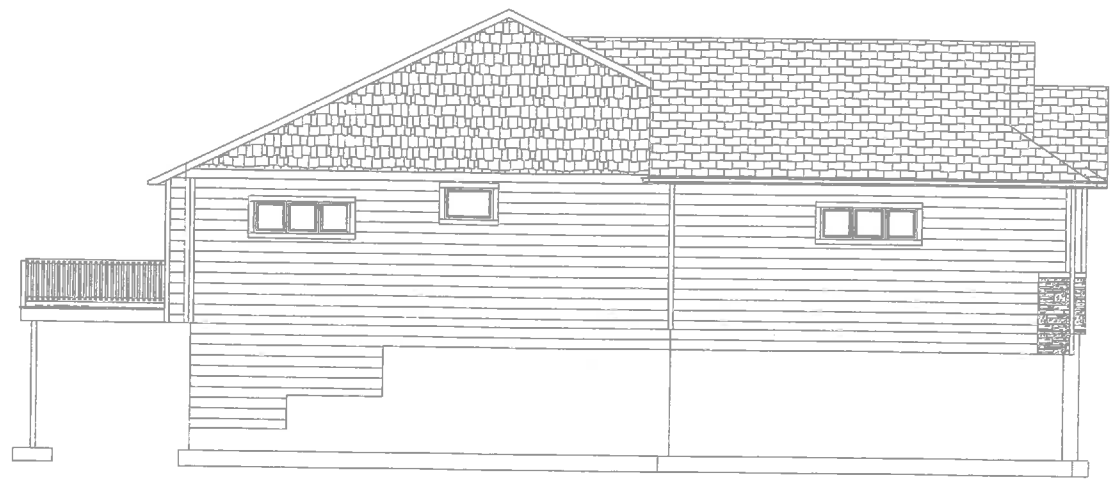
DRAWN BY: Lisa Cameron
 lisa@kimberley.com



FRONT ELEVATION
 Elevation Option B



- 8" Rake & Fascia Trim
- Shakes & Board in gables on all sides
 o to be painted contrasting color
- 4" Trim included around all windows and doors
- Cultured Stone to wrap sides of home 2' back



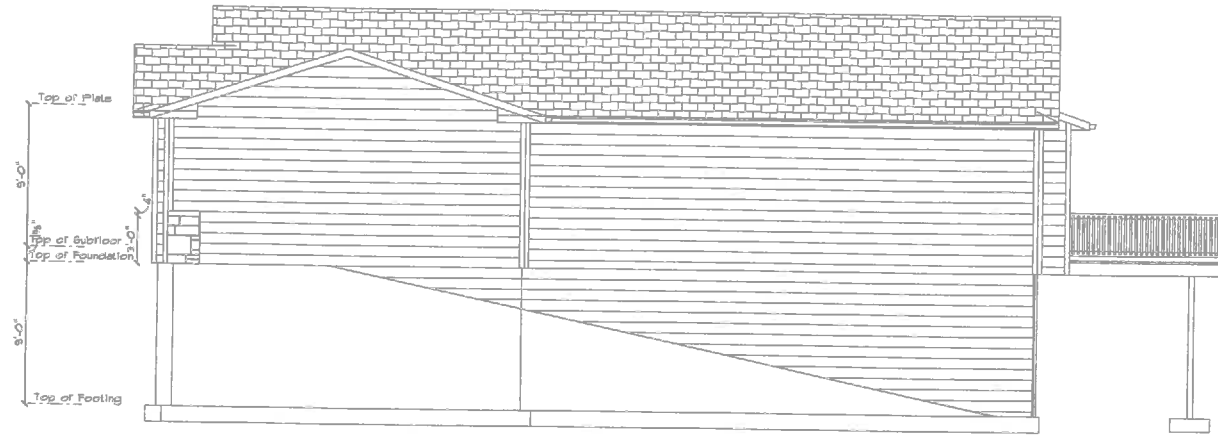
Drawings and Renderings are subject to change at builder's discretion



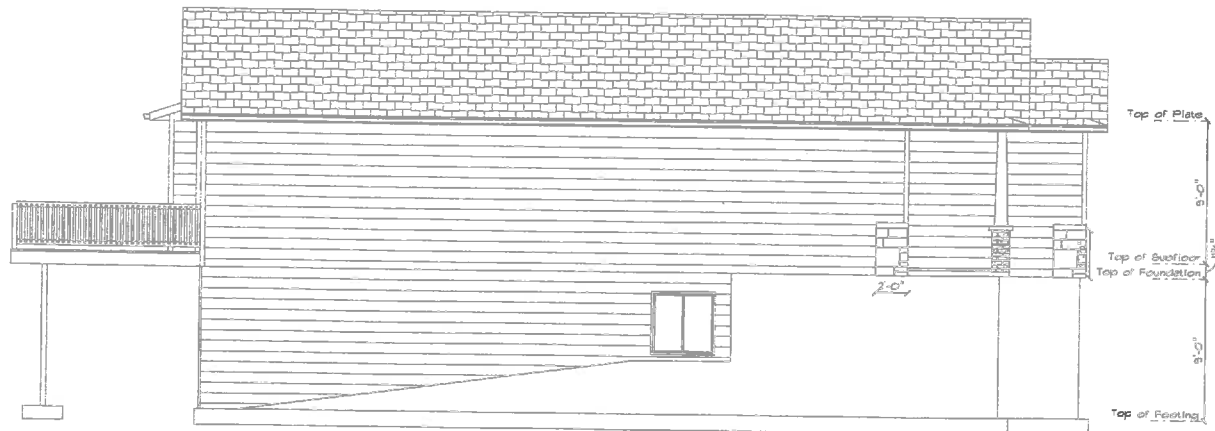
FRONT ELEVATION



REAR ELEVATION

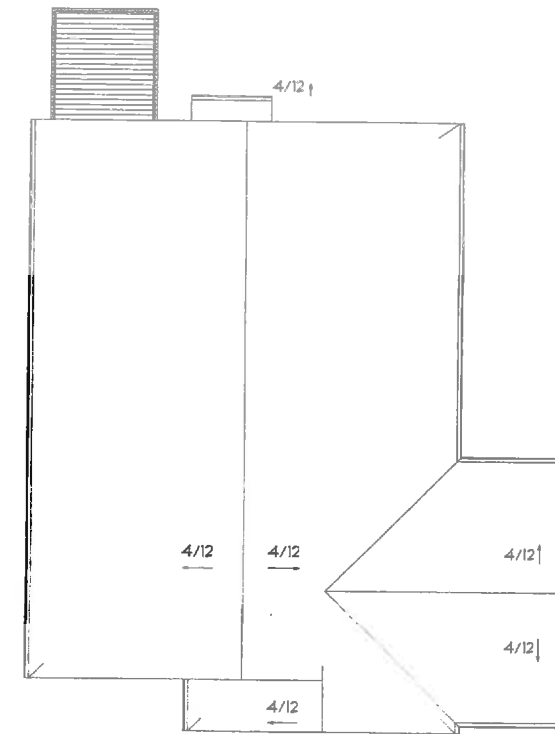


RIGHT ELEVATION



LEFT ELEVATION

- 6" Rafters & Fascia trim
- Shakes & Board in gables on all sides
c to be painted contrasting color
- 4" Trim included around all windows and doors
- Cultured Stone to wrap sides of home & back.



BIRD'S EYE PLAN

"The Oak Crest Ranch"

Garage Right Elevations

Main Floor	1384 sq. ft.
Garage	124 sq. ft.
Covered Deck	0 sq. ft.
Open Deck	120 sq. ft.
Front Porch	110 sq. ft.
Basement Finished	982 sq. ft.
Basement Unfinished	402 sq. ft.

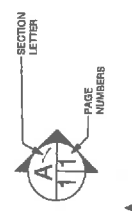


Kimberley
DEVELOPMENT CORPORATION

Kimberley
DEVELOPMENT CORPORATION

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PHONE: (515) 963-8335
FAX: (515) 963-0451
DRAWN BY: Lisa Cameron
lisc@kimdev.com

DATE: Wednesday, June 01, 2016
SCALE: 1/4" = 1'-0"



SECTION LETTER
PAGE NUMBER

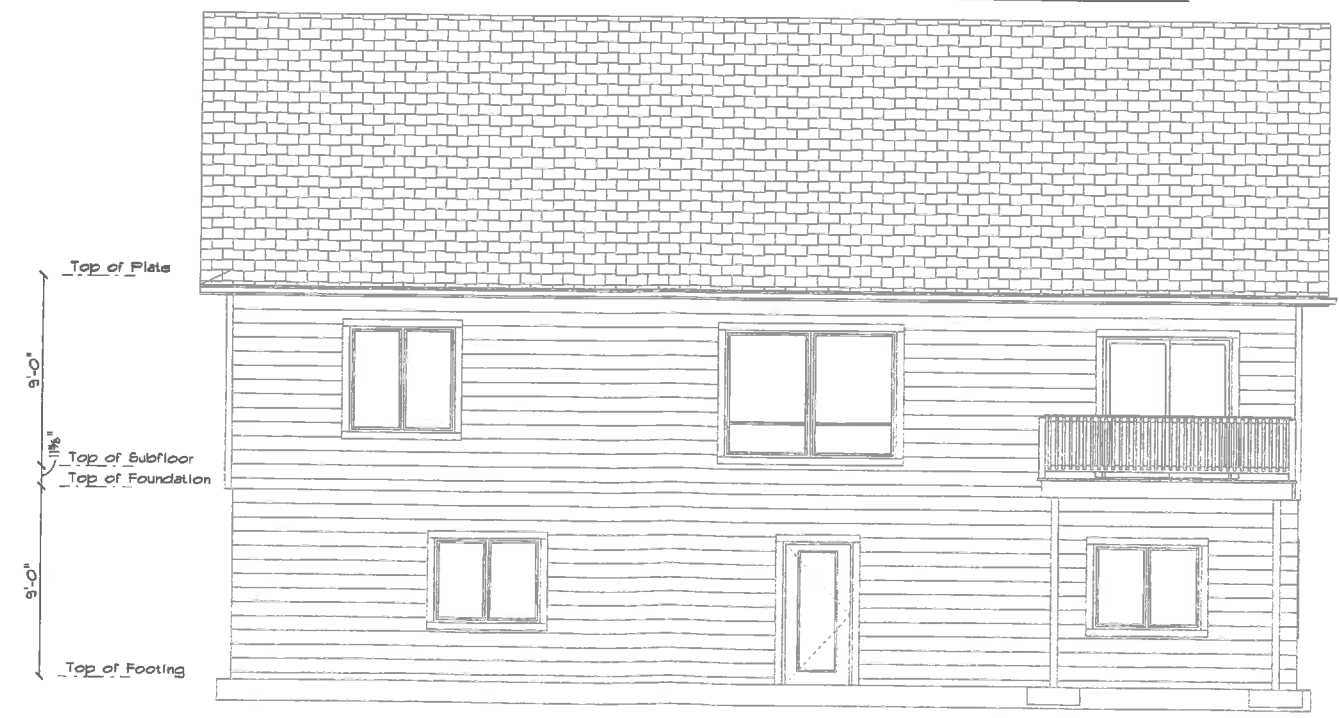
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FRONT ELEVATION



- 8' Rake & Fascia Trim
- Shake & Board in gables on all sides
o to be painted contrasting color
- 4' Trim included around all windows and doors
- Cultured Stone to wrap sides of home 2' back

REAR ELEVATION



SCALE: 1/4" = 1'-0"

SECTION LETTER: A

PAGE NUMBERS: 1/1

SOFTPLAN
ARCHITECTURAL DESIGN SOFTWARE

DATE: Friday, March 04, 2016

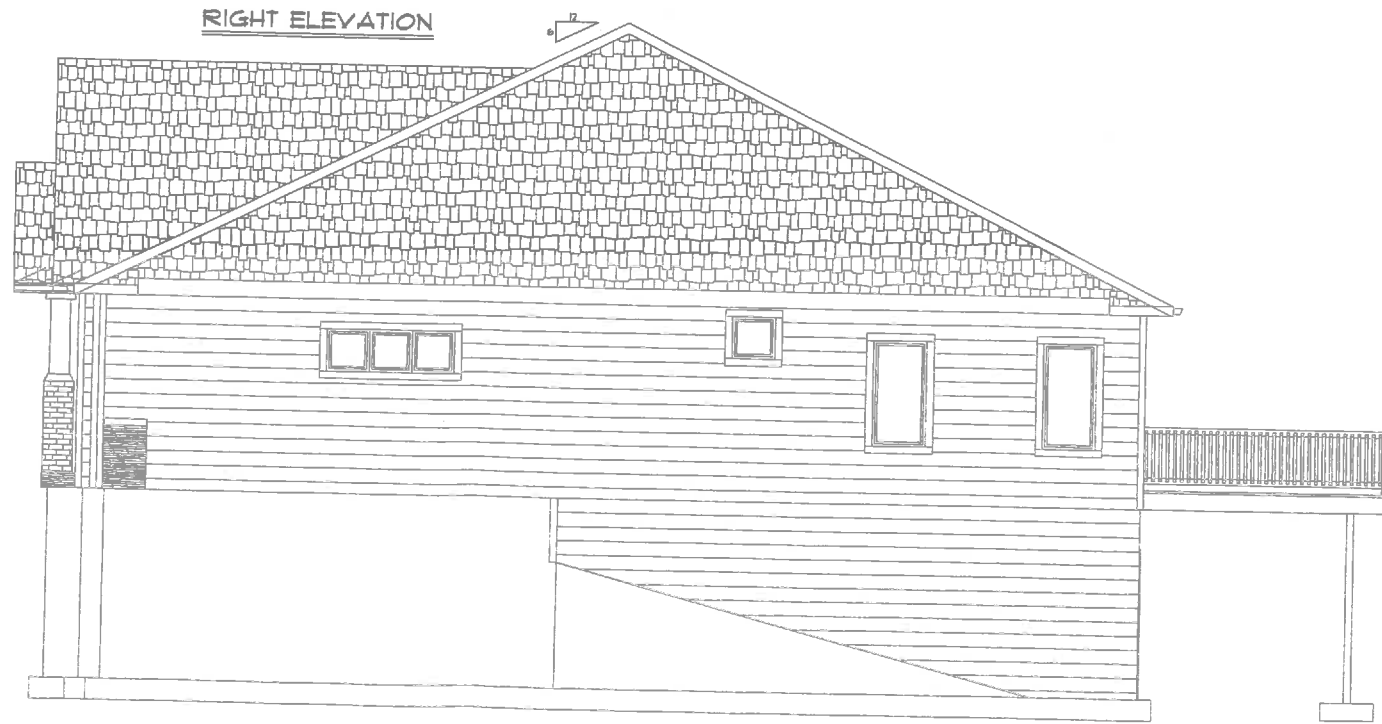
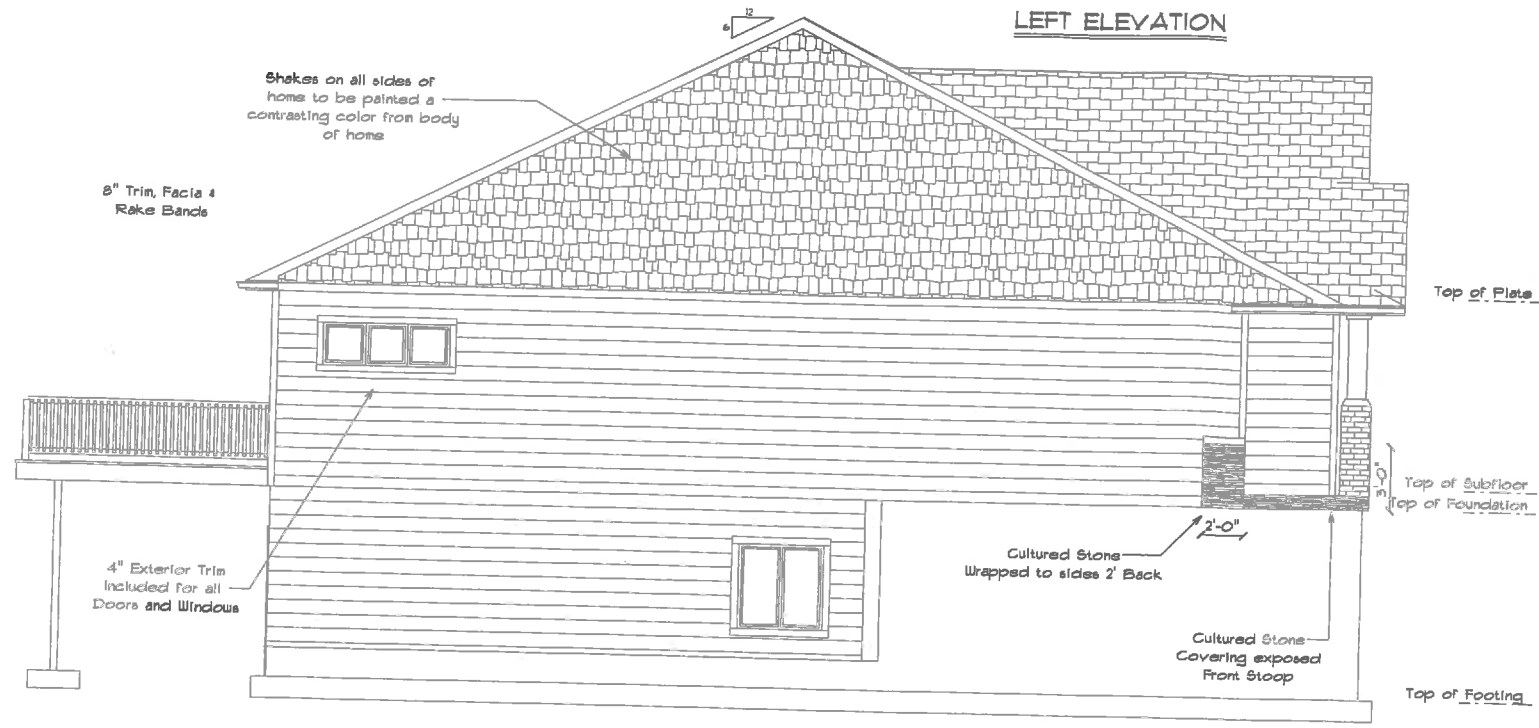
Main Floor - 1718 sq. ft.
Garage - 659 sq. ft.
Covered Deck 0 sq. ft.
Open Deck - 144 sq. ft.
Front Porch - 159 sq. ft.
Basement Finished - 1146 sq. ft.
Basement Unfinished - 572 sq. ft.
(Includes 4th bedroom)

Melrose
Elevation Option A
Garage Right

Elevation Views

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FAX: (515) 963-0457
DRAWN BY: Lisa Cameron
lisa@kimberley.com

Kimberley
DEVELOPMENT CORPORATION



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2185 N Ankeny Blvd., Ste. #22
 P.O. Box 369
 Ankeny, Iowa 50023
 PHONE: (515) 963-8335
 FAX: (515) 963-0451
 DRAWN BY: Lisa Cameron
 lisc@kimdev.com

Melrose
Elevation Option A
Garage Right

Elevation Views

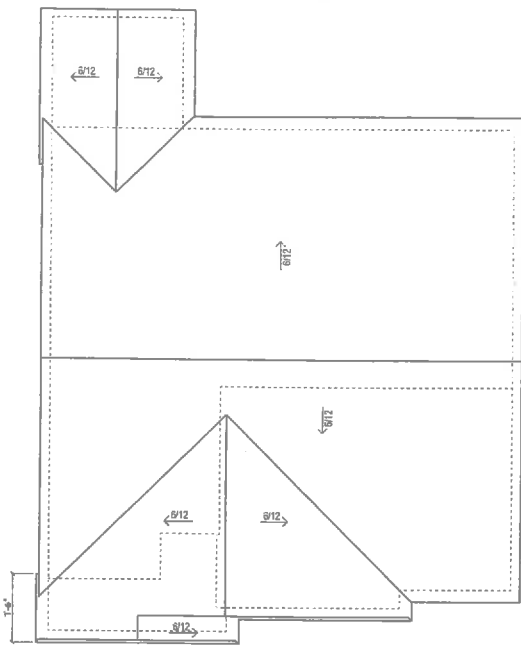
DATE: Friday, March 04, 2016

Main Floor - 1718 sq. ft.
 Garage - 659 sq. ft.
 Covered Deck 0 sq. ft.
 Open Deck - 144 sq. ft.
 Front Porch - 159 sq. ft.
 Basement Finished - 1146 sq. ft.
 (Includes 4th bedroom)
 Basement Unfinished - 572 sq. ft.

SCALE: 1/4" = 1'-0"



SOFTPLAN
 ARCHITECTURAL DESIGN SOFTWARE

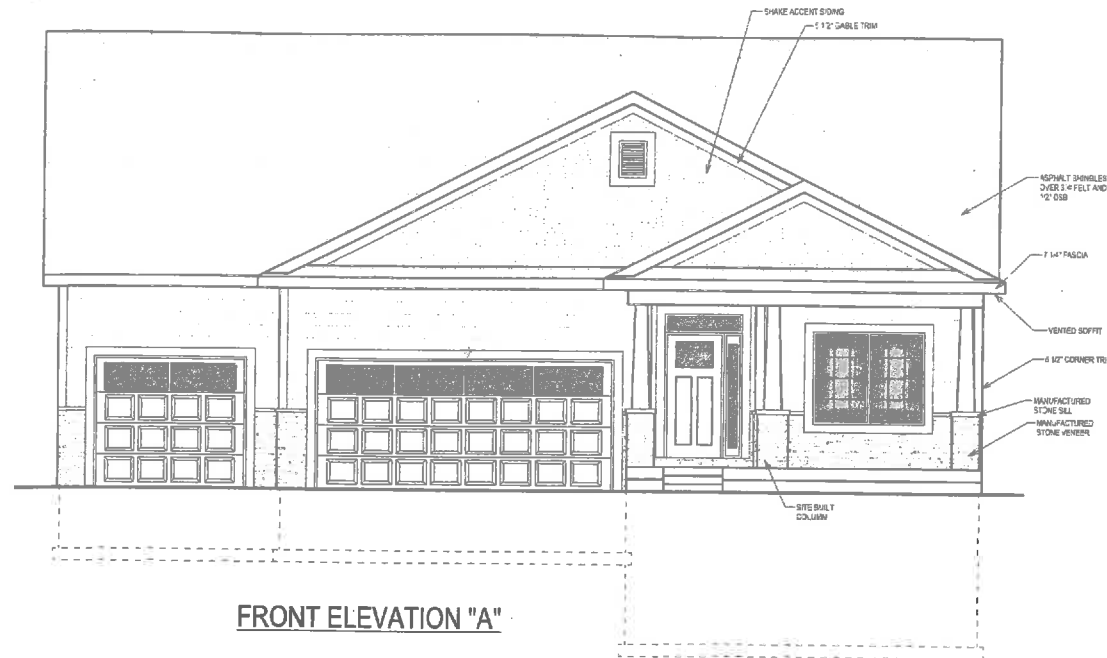


ROOF PLAN
1/8" = 1'-0"

ALL ROOF PITCHES ARE 8/12 WITH A 4" REEL HEIGHT
ALL GABLE ENDS HAVE A 1'-0" OVERHANG
ALL CHIMNEY ENDS HAVE A 1'-0" OVERHANG
ALL EYEBROWS HAVE A 1'-0" OVERHANG

PLEASE NOTE THAT THIS ROOF PLAN IS PROVIDED AS A REFERENCE TOOL ONLY - THE TRUSS MANUFACTURER IS RESPONSIBLE FOR PROVIDING A DETAILED TRUSS LAYOUT WITH ALL CORNER PLACEMENT HANGER DETAILS, ETC. - ANY QUESTIONS ARE TO BE DIRECTED TO THE TRUSS MANUFACTURER. BUILDER AND/OR THIS DESIGNER, HOMEWALDER HAS FINAL RESPONSIBILITY FOR ALL ASPECTS OF THIS PLAN. TRUSS MANUFACTURERS TO ADJUST HINGERS, HEIGHTS AS NEEDED TO FLUSH OUT OVERHANGS, DO HOWEVER NOTE THAT SOME ADDITIONAL TRUSS MEMBERS MAY BE USED ON THIS DESIGN AND SHOULD NOT BE INTERPRETED WITH

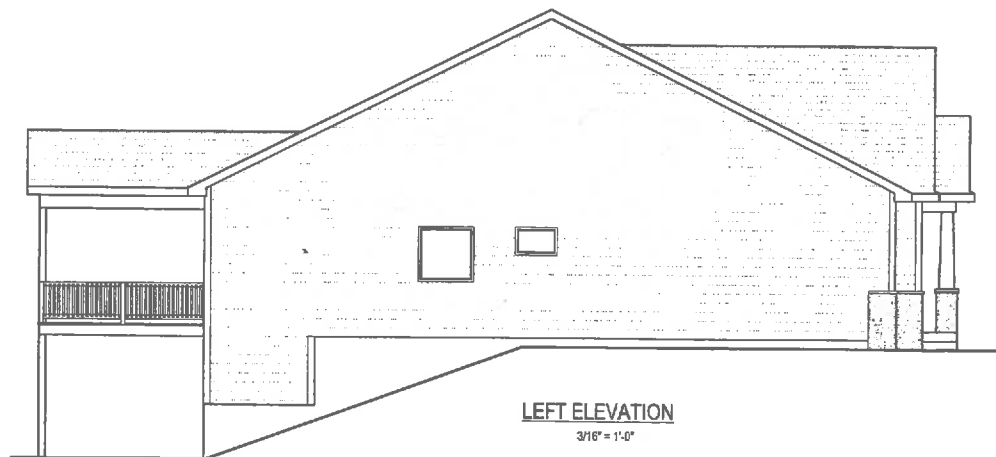
- CONSTRUCTION NOTES:**
1. DESIGN SHOWN IN ACCORDANCE WITH I.R.C. AND TYPICAL BUILDING PRACTICES IN CENTRAL IOWA.
 2. TRUSS MANUFACTURER TO SUPPLY LAYOUT DETAILS ON ANY TRUSS PRODUCTS THEY ARE PROVIDED. THESE LAYOUT DETAILS WILL INCLUDE PROVISIONS FOR ANY DETAILS SHOWN HERE. TRUSS DESIGN TO BE BASED ON FC LL, SUTD DL, TENS DL, IS LANDING CRITERIA. DISPOSITION ON ROOF BASED OFF OF ROOF @ 8/12, 20% MIN. LEAD.
 3. FLOOR SYSTEM ON THIS PLAN TO BE CONSTRUCTED OF ENGINEERED JOISTS WITH LANDING BEAMS ON WELD L1, T&E DL, @ 16" MAX DEFLECTION MINIMUM.
 4. ANY FLOOR JOIST OVERSPANS CAN BE REFERRED TO THIS DESIGNER OR I.I. MFR.
 5. MICRO LAMINAR BEAMS ARE SIZED AS UP 2007 F11 BE SIZED AT A L&B DEFLECTION.
 6. SMALL EXTERIOR OVERSPANS RUN TO TOP OF OUTSIDE STUD.
 7. INTERIOR DIMENSIONS RUN TO FROM EDGE OF STUD AND CENTER OF BEAM.
 8. ALL HEADERS IN 2x6 WALL TO BE DOUBLE 2x6 UNLESS NOTED OTHERWISE.
 9. ALL HEADERS IN 2x8 WALL TO BE TRIPLE 2x8 UNLESS NOTED OTHERWISE.
 10. PROVIDE TOP OF BEAMS UNDER ALL HEADERS/BEAMS/JOISTS ETC.
 11. INSULATE ANY ALL CANTILEVERS AND BIRD CORNERS, WALL JOINTS, ETC.
 12. PROVIDE SOLID BLDGING BEHIND ALL TONEL BARS - HORIZONTAL BRKTS, CLIPSET ROD SUPPORTS, CURTAIN ROD SUPPORTS, ETC.
 13. WINDOW NOMENCLATURE IS FOR UNIT SIZE IN FEET X INCHES - 2'-0" X 4'-0".
 14. ALL WINDOW OPENINGS TO BE COMPLETED BY SUBCONTRACTOR BEFORE ORDERING.
 15. ANY ALL OPENINGS EXTERIOR WALLS EXPOSED IN BASEMENT WILL BE DETERMINED BY THE SLOPE OF LAND AFTER EXCAVATION.
 16. ANY DESIGN CHANGES TO THIS PLAN WHICH AFFECT ANY STRUCTURAL MEMBERS SHOULD BE APPROVED BY THIS DESIGNER OR A STRUCTURAL ENGINEER.
 17. SUBCONTRACTORS HAVE FINAL DECISIONS ON ALL ASPECTS OF PLAN.
 18. ALL HEADERS AND BEAMS ARE DROPPED UNLESS NOTED OTHERWISE.



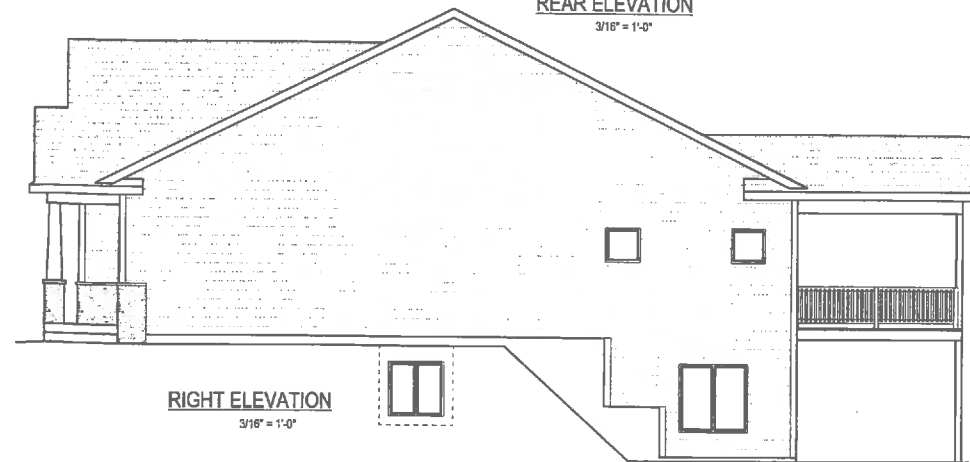
FRONT ELEVATION "A"



REAR ELEVATION
3/16" = 1'-0"



LEFT ELEVATION
3/16" = 1'-0"



RIGHT ELEVATION
3/16" = 1'-0"



BEISSER DESIGN SERVICE
11111 S. UNIVERSITY AVENUE, SUITE 100
MILWAUKEE, WI 53222
TEL: 414.224.1111
WWW.BEISSERDESIGN.COM

DRAWN BY:
A. LANNEN
N. MAYHOSE

KIMBERLEY DEVELOPMENT
THE WILLIAM

DATE	5-1-15
REVISED	2-8-16
	4-26-16
	9-7-16
SCALE:	As Noted
SHEET:	A5
PROJECT:	FRONT A
PLAN NO.:	1017-16

FRONT ELEVATION



REAR ELEVATION



- 8" Rake & Fascia Trim
- Batten & Board in gables on all sides
 - o to be painted contrasting color
- 4" Trim included around all windows and doors
- Cultured Stone to wrap sides of home 2' back

Drawings and Renderings are subject to change at builder's discretion

SCALE: 1/4" = 1'-0"



SOFTPIXIAN
ARCHITECTURAL DESIGN SOFTWARE

DATE: Friday, March 04, 2016

Main Floor - 1879 sq. ft.
Garage - 659 sq. ft.
Covered Deck 0 sq. ft.
Open Deck - 98 sq. ft.
Front Porch - 75 sq. ft.
Basement Finished - 1243 sq. ft.
(Includes 4th bedroom)
Basement Unfinished - 636 sq. ft.

The Manor Ranch
Elevation Option A
Garage Left

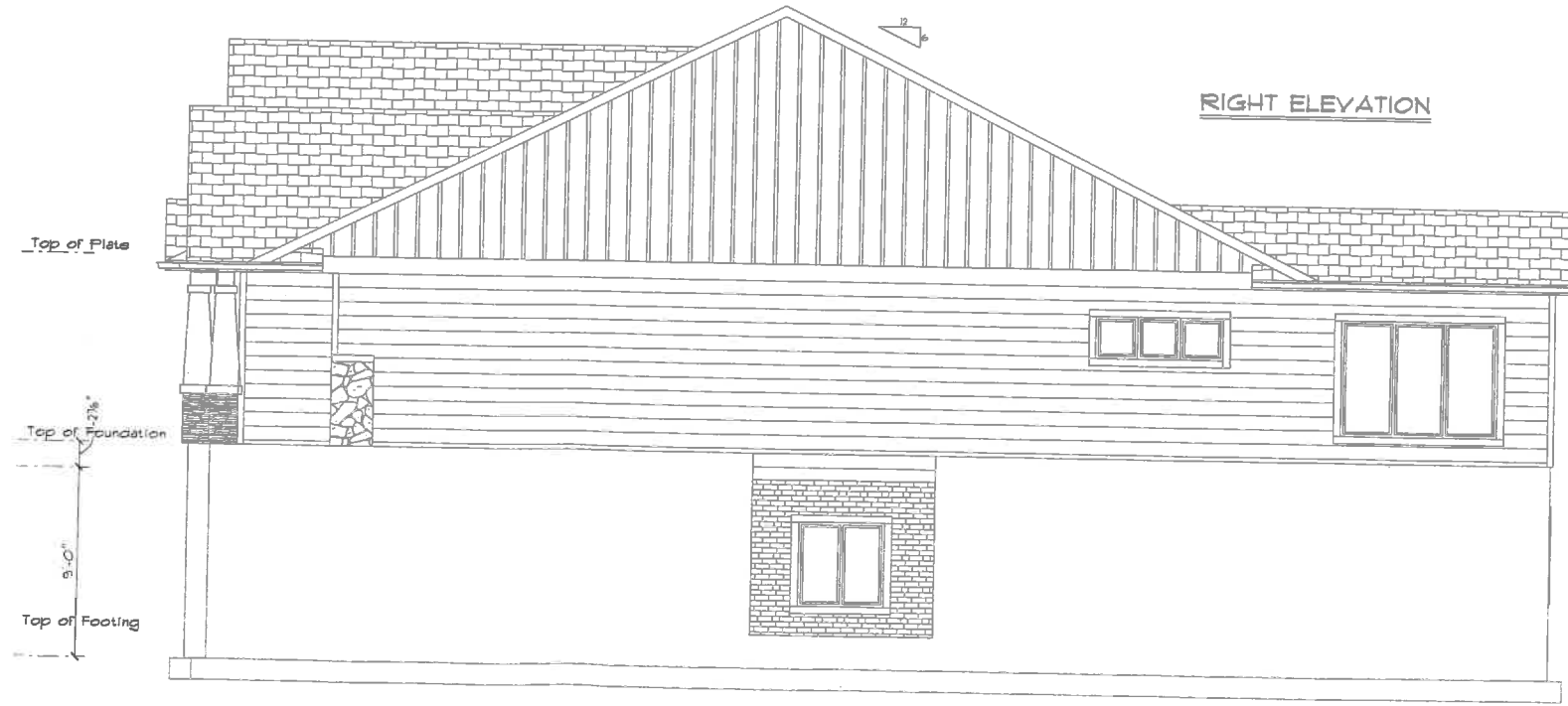
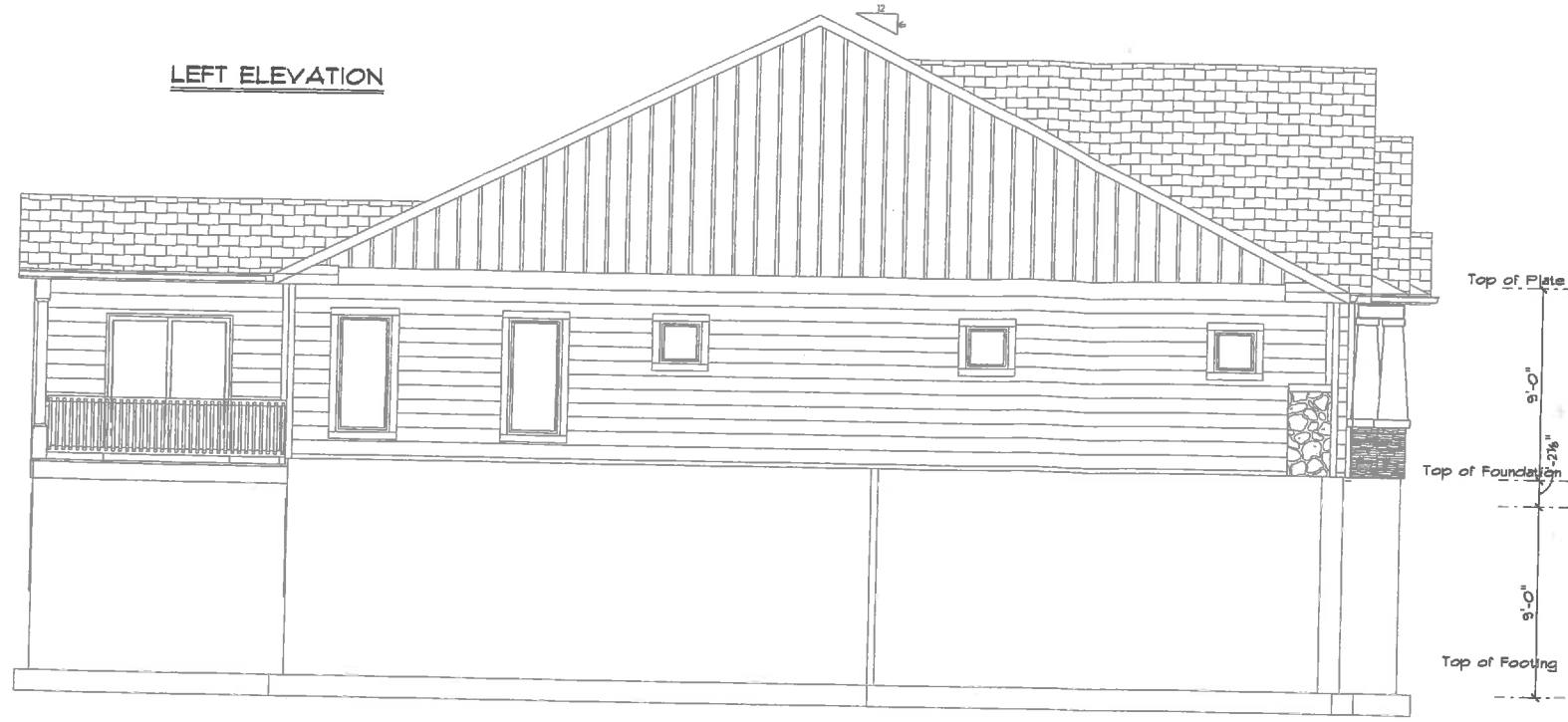
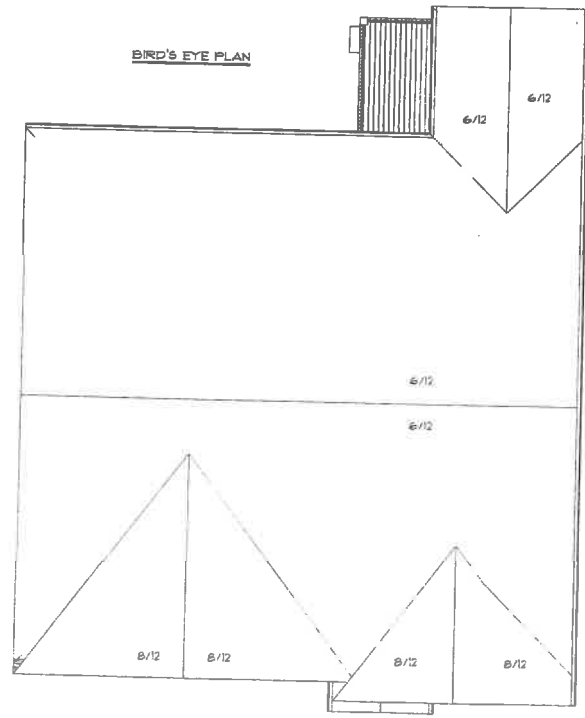
Front & Rear Elevations

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SCALE: 1/4" = 1'-0"

SECTION LETTER
A
PAGE NUMBER
1/4

SOFTPLAN
ARCHITECTURAL DESIGN SOFTWARE

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Elevation Option A
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Side Elevations

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